Safety and Health Manual

2022

Safety Policy

The leadership of Watertap Inc and its subsidiaries, affiliates and contractors sincerely cares about its employees and is committed to working with our employees to provide and maintain a safe and healthful workplace in our offices, shops, field sites and in the services we provide through our maintenance operations. We believe all incidents and accidents are preventable and we are committed in assisting our employees to achieve this same mentality and outcome.

Our policy requires that each one of us take on the personal responsibility to properly understand the hazards we face in the execution of our work tasks and mitigating the hazard prior to commencement of the work at hand. We are all empowered to act to ensure our own safety. Should an employee face an unsafe condition they cannot mitigate and perform the work tasks safely, they are to report the matter at hand immediately to their supervisor and not proceed with the work. At no time should an employee proceed in an unsafe condition or environment. NO EXCEPTIONS. Employees must immediately report all accidents and injuries as well as allow the company to learn from the situation and avoid a repeat event in the future.

Recommendations to improve safety and health conditions are strongly encouraged. Each recommendation will be evaluated for possible application. Watertap Inc will review each project at close as well as safety audits, employee input, near-misses, etc. to help improve safety on future projects.

It should be everyone's goal to ensure that all make it home safe to our family's each and every day. Like other non-negotiable elements of the company, Management will take disciplinary action against any employee who willfully violates safety rules or procedures. This action may include verbal or written reprimands and may ultimately result in termination of employment. Compliance with the company's commitment to safety and our procedures that are designed to promote a safe work environment will be required of all employees as a condition of employment. Policies and procedures contained within the Safety and Health Manual are incorporated as standard practice for Watertap Inc.

The commitment to safety is across the board from management to field operations. From top to bottom, the primary focus on what we do will be on the presence of a safe working environment.

Thank you for your commitment to our company's overarching goal of eliminating all worker injuries.

Section 1. General

Accident Investigation and Reporting

1.0 PURPOSE

The purpose of this section is to provide guidance for the investigation and reporting procedures in the event of an accident, incident, or near-miss.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent project or Owner's requirements.

3.0 GENERAL

a. Watertap Inc, its employees shall abide by the policy of "Do No More Harm". Scene safety shall have first priority. Ensure no other person(s) is injured. Ensure nothing is disturbed nor removed after proper evacuation of the injured personnel.
b. The injured person(s) shall have prompt and appropriate care.
c. The respect and dignity of the injured, the family, and all involved shall be preserved.
d. Operations shall be restored to "normal".
e. All documentation and communication shall be collected to create a "lessons learned"; which shall be reviewed to prevent recurrence.
f. Accidents, incidents, and near-misses can be classified based on sustained injuries and/or property damage and investigated according to the severity level.
   - Serious Injury or Death
   - Property Damage
   - Near-Misses (incidents without injury or property damage)
   - Minor and First-Aid Injuries

4.0 REPORTING

a. All accidents, incidents, and near-misses shall be reported immediately to the Watertap Inc site management, Safety Director and to the appropriate personnel of the host facility/owner.
b. If a fatality occurs or if 3 or more people are taken to the hospital (or nearest medical facility), OSHA shall be notified within 8 hours of occurrence.
c. If an amputation, loss of an eye, or in-patient hospitalization occur, OSHA shall be notified within 24 hours of occurrence.
d. Appropriate reports shall be completed and submitted to Watertap Inc Safety Director and Site Management within 24 hours of occurrence.

5.0 INVESTIGATIONS

a. Investigations shall be conducted by the Watertap Inc Safety Director.
b. The followings steps shall be taken when conducting an investigation:
   - Stabilize and control the area. Place barriers, turn off power to equipment, stop activity, etc.
   - Minimize discussion regarding details of the event and written communication regarding the event.
   - Conduct interviews at the scene of the incident, if possible. Ensure that the witnesses discuss the event in relative privacy. Begin with those who can contribute most. Get written statements from all witnesses. See Attachment 1 – Accident Report, Attachment 2 – Incident Report
   - Look for evidence. Preserve, collect, and secure any evidence found.
     - All necessary equipment shall be made available to collect evidence.
     - All evidence shall be identified and assessed.
     - What is the equipment doing? Note settings of controls. Preserve and secure the evidence.
     - Any physical evidence from victim?
     - Note, and sketch, what you see. Provide all notes to the investigator.
     - Take pictures
c. Identify and take immediate corrective action where warranted.
d. After all evidence has been collected and witness statements documented, the accident and/or incident report shall be completed. Copies of the incident report shall be made available upon request.

6.0 TRAINING

The Watertap Inc Safety Director and Site Management shall be trained in the proper investigation techniques and procedures as outlined above.

7.0 RECORDKEEPING

a. The following forms must be completed after every reportable injury or illness. A reportable injury is one that requires medical attention and/or follow up treatment and as defined by OSHA or state regulations:
   - Medical Treatment Authorization Forms
   - Foreman's and Supervisor's Accident Report
   - Injury and Illness Report, OSHA 301
   - Log and Summary of Occupational Injuries and Illness, OSHA Form 300

b. The Watertap Inc OSHA Form 300A, for the previous year, must be posted annually February through April.

c. The OSHA Form 300A must be submitted electronically to the OSHA Injury Tracking Application every year.

8.0 ATTACHMENTS

a. Attachment 1 – Accident Report

b. Attachment 2 – Incident Report

Hazard Analysis and Reporting

1.0 PURPOSE

This purpose of this section is to facilitate the minimization or elimination of recognized work-related safety and health hazards.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

Hazards are unsafe conditions or acts that have the potential to cause loss or injury. The identification, evaluation, reporting, and ultimate control of recognized hazards is important in maintaining a safe workplace.

4.0 RESPONSIBILITY

4.1 SAFETY DIRECTOR

a. The Safety Director shall review, and assist as necessary with, the hazard analysis to ensure all potential hazards associated with a task are identified along with the safe method controls to mitigate each hazard.
b. The Safety Director is responsible for communicating recognized hazards.
c. The Safety Director is to assist Supervisors in determining necessary corrective action when requested and verify the completion of the corrective action.
d. Safety Director shall periodically review this guideline to ensure its effectiveness

4.2 SUPERVISORS

a. Supervisors shall complete a hazard analysis for the job tasks to be performed.
b. Supervisors are to initiate necessary corrective action, monitor its completion and notify the Safety Director when necessary corrective action is complete.

4.4 EMPLOYEES

a. Employees are encouraged to actively participate in the assembly and review of hazard analyses.
b. Employees are to report recognized hazards as soon as possible and assist in the investigation and control of the recognized hazard.
c. Perform other responsibilities stated in this guideline as they apply to their job function.

5.0 PROCEDURES

5.1 HAZARD ANALYSIS

a. Hazard analysis shall be completed for each project.
b. Individual tasks for the project should be listed with the associated or potential hazards for each task.
c. Control methods to mitigate each hazard must be specified.
d. If a task cannot be completed in compliance with Watertap Inc safety guidelines, consult Safety Director to devise a plan to execute work in an alternative and safe manner.
e. To adequately document the hazard analysis, a Job Safety Analysis (JSA) or Pre-Task Plan (PTP) should be completed to cover a project's scope of work.
f. To ensure employees' involvement in the hazard analysis process, Daily Huddles should be conducted with the work crew.

5.2 JOB SAFETY ANALYSIS (JSA) / PRE-TASK PLAN (PTP)

a. JSAs/PTPs must be reviewed and signed by all employees involved in the task, prior to starting task.
b. JSAs/PTPs must be reviewed by all employees when changes are made to the JSA/PTP.
c. If a task cannot be completed according to the JSA/PTP, employees must stop work, devise a plan to execute task safely, and revise the JSA/PTP.

5.3 DAILY HUDDLE

a. A daily huddle is a condensed version of the JSA/PTP, specific for the part(s) of a task to be completed during the workday, and potential hazards/control methods.
b. A daily huddle must be reviewed and signed by all employees, each day, prior to starting work.

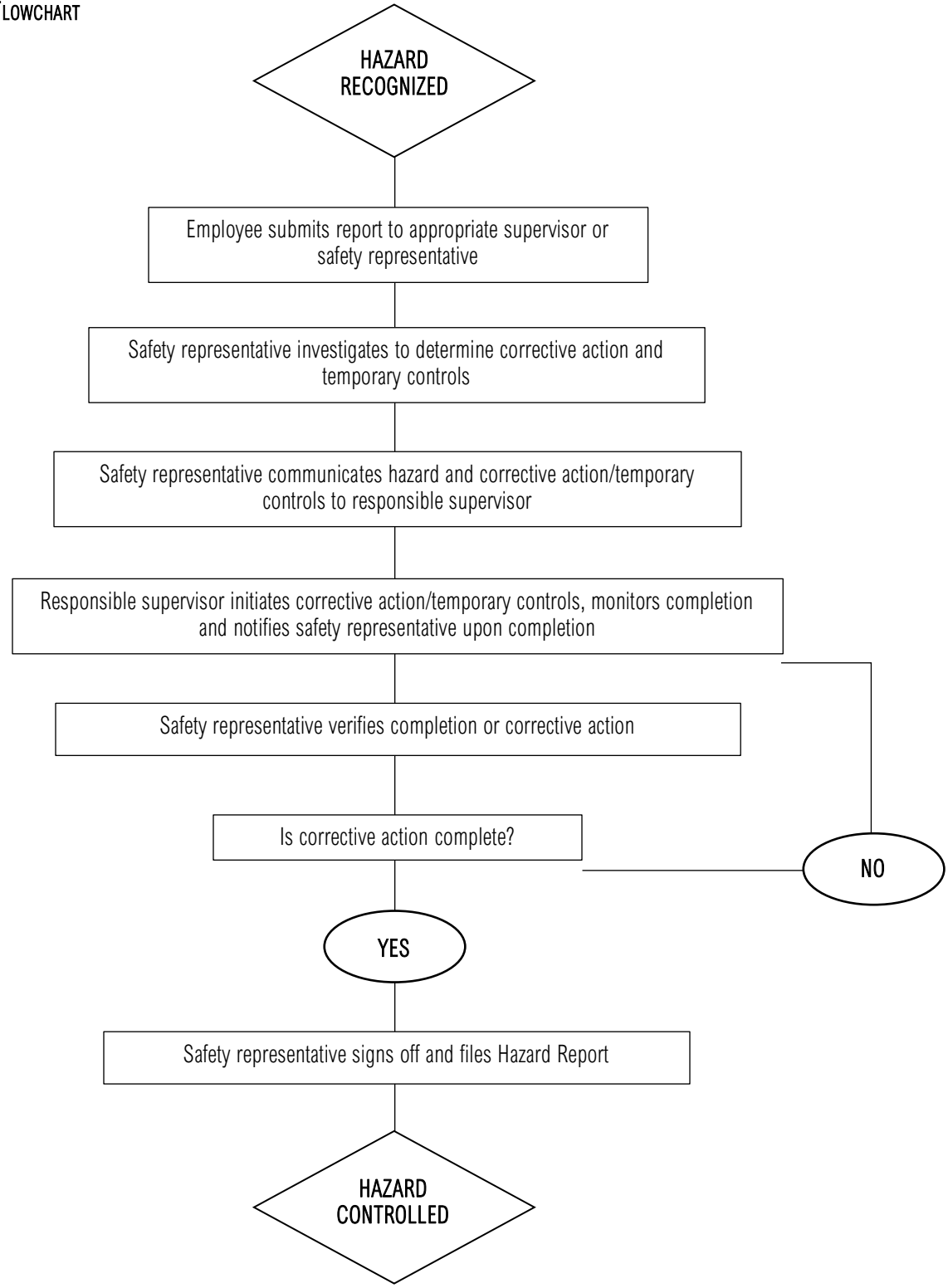
5.4 HAZARD REPORTING

a. All employees must immediately report recognized hazards to their immediate supervisor.
b. If a new hazard presents itself during the course of the task, all work must stop until the hazard is evaluated and a plan is developed to continue the work in a safe manner.
c. Hazard Reporting Flowchart on following page.

6.0 ATTACHMENTS

a. Attachment 3 – Daily Huddle
b. Attachment 4 – Job Safety Analysis (JSA)
c. Attachment 5 – Pre-Task Plan (PTP)

HAZARD REPORTING FLOWCHART



Safety Inspections

1.0 PURPOSE

The purpose of this section is to ensure comprehensive, documented safety inspections are completed to verify compliance with the Safety Program.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Safety inspections are an integral part of any Safety and Health Program and necessary to ensure compliance with the Program.
b. Watertap Inc conducts three types of safety inspections:
   - Daily informal inspections
   - Weekly documented inspections
   - Monthly inspections completed by the Safety Manager.

4.0 RESPONSIBILITY

4.1 EMPLOYEES

Employees are expected to conduct a daily inspection of their work area(s) to ensure they are free of hazards.

4.2 SUPERVISOR/FOREMAN

Each supervisor will be responsible for conducting a daily informal safety inspection of the work area(s). The supervisor will conduct a weekly formal documented safety and health inspection of the work area(s).

4.3 SAFETY MANAGER

The Safety Manager will be responsible for conducting a monthly inspection of the work area(s). The Safety Manager shall collect the weekly safety inspections from each supervisor.

5.0 PROCEDURE

5.1 INSPECTION PROCEDURES

a. Work methods as well as working conditions shall be observed. Prior to the inspection, the supervisor should review past accidents and near-misses to determine specific causes and high hazard areas and/or operations. Such areas will be given special attention during each inspection
b. In addition to the contents of the inspection check sheet, the supervisor will note unsafe acts such as:
   - Using equipment without authority.
   - Insecure or disorderly piling or arranging of materials.
   - Operating equipment at dangerous or unsafe speeds.
   - Using defective tools or equipment.
   - Unsafe loading or unloading of trucks, skids, racks, etc.
   - Lifting improperly, or handling loads that are too heavy.
   - Using tools, equipment or vehicles improperly.
   - Making guards or safety devices inoperative.
   - Failure to use personal protective equipment.
   - Repairing or adjusting machinery in motion or equipment that is under pressure or energized.
   - Horseplay.

5.2 DOCUMENTATION

Safety inspection checklists will be submitted to the Safety Manager in the following manner:

- Once the supervisor completes the checklist, a copy should be forwarded to the Project Manager. An additional copy will be forwarded to the Safety Manager/Coordinator to initiate follow-up assistance.
- The completed checklists will be discussed as part of the Safety Committee agenda.

5.3 CORRECTIVE ACTION AND FOLLOW-UP

a. Whenever possible, the supervisor will correct/abate unsafe methods and conditions immediately upon recognition.
b. Each safety inspection checklist will be updated during the next scheduled tour. Items not corrected/abated will be repeated on the new checklist with asterisks indicated a repeat item and a notation of the date originally identified.
c. Hazardous conditions or procedures detected during inspections for which no corrective action can be determined by the supervisor will be brought to the attention of the Safety Manager. The Safety Manager will consult with the supervisor,

maintenance/engineering, immediate manager, Safety Committee, and outside consultants, as appropriate, to determine suitable corrective action.

d. Recommendations submitted by insurance company representatives and/or outside consultants will be handled in the same manner as the Safety Inspection Checklists.
e. Safety Manager shall review inspection checklists and make recommendations for further training/education as necessary.

6.0 ATTACHMENT

a. Attachment 6 – Safety Inspection Checklist

Code of Safe Work Practices

1.0 PURPOSE

The purpose of this section is to provide basic safety rules and safe work practices to newly hired employees.

2.0 SCOPE

a. The rules and work practices contained within this section apply to all Watertap Inc operated facilities, projects, and employees.
b. The rules and work practices contained within this section are not intended to be the only and all-inclusive guideline for each category of work activity.
c. Safety procedures and guidelines for specific categories of work activity are contained within the entirety of this Safety and Health Manual. These specific procedures and guidelines should be reviewed and followed in addition to the safety rules and safe work practices in this section.

3.0 SAFE WORK PRACTICES

3.1 GENERAL SAFETY RULES

a. Immediately report any unsafe condition(s) or behavior(s), accidents, injuries, and illnesses to a supervisor
b. If a worker is unsure of the safe method to perform a task, STOP and ask a supervisor.
c. Keep work area clean and free of debris.
d. Immediately clean up spilled liquids. Refer to Safety Data Sheet (SDS) for proper PPE and handling of spilled liquid. Dispose of all waste and refuse properly. Ask a supervisor about the proper disposal method and check the Safety Data Sheet (SDS).
e. SDSs are available on tablets.
f. Do not run in any project or office area.
g. Notify all individuals in work area who might be endangered by the work activity.
h. Do not operate unfamiliar equipment. Do not attempt to use such equipment until fully trained and authorized to do so.
i. Never bring firearms, illegal weapons, illegal drugs or unauthorized non-prescription drugs, or alcoholic beverages on Watertap Inc property or project sites.
j. Employees who are suspected of being under the influence of illegal or intoxicating substances, impaired by fatigue or an illness, shall be prohibited from working. Never work while under the influence of an illegal or intoxicating substance, fatigued or ill.
k. Use of fall protection is required when a fall potential of six feet or greater exists.
l. All liquids are to be in labeled containers. At the end of each shift, store all flammable materials in designated flammable storage areas.
m. A tag may identify equipment that is NOT to be operated, energized, or used. All tagout or lockout notices and procedures must be observed and obeyed.
n. When handling hazardous materials, ensure applicable safety procedures are followed, refer to SDS and use required safety precautions.
o. Do not block exits, fire doors, aisles, fire extinguishers, First-Aid kits, gas meters, electrical panels, or traffic lanes.
p. Do not leave tools, materials, or other objects on the floor in area where they might cause others to trip and fall.
q. All visitors must abide by all safety rules and be escorted by a responsible employee.
r. Never work under forklift loads or overhead crane loads.

3.2 FACILITY SAFETY

a. Walkways and Exits:
   - All exits are to be marked, clear, and well lit. They are to be unlocked at all times during working hours.
   - Always use handrails when walking up or down stairways. Do not take more than one step at a time.
   - Always use ladders, ramps, gangways, stairways, and paths intended for safe travel.
b. Electrical, Electric Panels and Lines:
   - Keep access to electrical panels clear at all times.
   - Use only properly rated electrical extension cords.
   - Electrical cords must always be checked for bare wires and broken ground pins prior to being used. If the cord has exposed wires or broken ground pins, UNPLUG and then cut the end off and return for repair.
   - Cords that must be placed across an aisle must be clearly marked and protected by a cover.
   - Follow lock-out/tag-out procedures to secure electrical equipment at the power panel while maintenance is being performed and remove upon completion.
   - Extension cords are intended for temporary use only with a supervisor's authorization and are to be rolled back at the end of the work operation or at the end of the shift.
c. Air, Gas, Oxygen and Water Lines:
   - Do not alter or modify air or water lines, except as outlined in the approved scope of work.

- Check all air hoses for cracks before use.
- If an air hose is in poor working condition, disconnect, and then cut the end off and discard.
- Be sure that no oil or lubricant is on an oxygen line or coupler. If oil is present, wipe immediately. Failure to do so could cause an explosion.

3.3 FIELD SAFETY

a. The location of the nearest medical clinic or hospital is to be posted in the field office.
b. Keep work areas free of debris. Remove debris from the work area to reduce tripping hazards.
c. Maintain awareness of potential hazards when walking around the project site
d. Keep tools, materials, and equipment out of walkways and stairways at all times.
e. Do not lend or borrow tools from other companies/contractors.
f. When working on ladders and scaffolds, let people below know about overheard work, and follow ladder and scaffold safety rules.
g. Always erect barricades before removing floor or roof opening covers. Replace the covers before removing barricades.
h. Do not remove or work on any electrical equipment unless it is tagged and locked out.
i. Wear clothing that will protect from adverse weather conditions without hampering freedom of movement.
j. Do not disturb any asbestos or suspected asbestos containing materials. Stop work and report to a supervisor. If unsure, stop and ask.
k. Wear shirts with sleeves and long pants at all times. Do not remove shirt.
l. Wear safety glasses or other eye protection as required.
m. Do not overload aerial work platforms. Do not operate lifts unless authorized.
n. Do not enter any confined space, manhole, underground vaults, chambers, tanks, or other similar places until written authorization has been posted and updated.
o. Confined space entry requires separate training and authorization.
p. When working in hot areas or confined spaces, be sure to drink water frequently to properly hydrate.

3.4 OFFICE SAFETY

a. Computer monitors, keyboards, and chairs shall be adjusted to provide maximum comfort while working.
b. Furniture, fixtures, and equipment used by employees shall be in good working condition.
c. Do not place heavy objects on top of cabinets or shelves at any time.
d. Open one file cabinet drawer at a time and close immediately after use.
e. Do not lean back in chairs that are not designed to tilt back.
f. Extension cords are intended for temporary use only and should be rolled back at the end of the work operation or at the end of the shift.
g. When possible, put reading materials on a stand or easel instead on laying them flat on a workstation.
h. Stand and stretch periodically to avoid back strain.
i. Immediately clean up spills.
j. Keep aisles free of tripping hazards.
k. Know the location of the nearest fire exit and fire extinguisher.

3.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

a. Determine the personal protective equipment required prior to starting a task.
b. When project site requirements dictate the mandatory use of hard hats, they must be worn at all times while on the project site.
c. When required, employees and visitors MUST wear ANSI approved safety glasses at all times when on project sites and in the shop facilities.
d. Employees and visitors must wear sturdy work shoes appropriate for construction work when on project sites.
e. Be sure the protective clothing will not hamper or restrict freedom of movement due to improper fit.
f. Do not wear loose, torn, or frayed clothing, dangling ties, finger rings, dangling earrings, or other jewelry items due to entanglement hazards.
g. If required, wear NIOSH approved respirators when applying paint, welding, grinding, or working with chemicals. Refer to the SDS for respirator recommendations.
h. Face shields with safety glasses are recommended when performing work that produces flying particles.

3.6 MANUAL LIFTING SAFETY

a. Consider the weight and size of a load prior to picking it up.
b. Use material handling equipment such as carts or dollies whenever feasible.
c. If a load is too heavy or bulky to carry alone, ask someone for help.

d. Remember, in good lifting posture, your ears, shoulders and hips are aligned.
e. When picking up something off the floor, squat down, keeping back straight rather than bending over at the waist.
f. While handling a load, instead of twisting body, turn whole body in the direction of intended travel.

3.7 MATERIAL HANDLING AND STORAGE

a. Take care when lifting, moving, or handling materials. Always use proper lifting techniques. Get help when lifting heavy, bulky, or awkward loads.
b. Store flammable liquids, combustible materials, and compressed gasses in designated areas only.
c. Use a cart to move compressed gas cylinders. Strap the cylinders securely in place.
d. Use a bottle carrier when using a forklift to move gas cylinders. Be sure to secure the cylinder properly.
e. Store all materials in a safe manner. Be careful not to overload floors, platforms, or racks.
f. Protect your hands - wear gloves when appropriate.
g. To move heavy or bulky loads, use mechanical means whenever possible.
h. When transporting gases in vehicles, secure them to the vehicle in an upright position. Never transport cylinders lying down (horizontally).
i. When storing material in racks, observe all posted capacities and procedures.

3.8 HOUSEKEEPING

a. Safe housekeeping practices are the responsibility of every employee.
b. Keep roads, walkways, grounds, aisles, stairs, platforms, ladders, and fire doors clear or obstruction and debris.
c. Oily rags should be placed in closed metal containers until they can be cleaned or disposed.
d. Any oil or chemicals spilled should be cleaned up immediately using safe practices as outlined in the SDS for the spilled oil or chemical.
e. Waste material should not be allowed to accumulate.
f. Broken glass should be immediately collected and placed in containers. It should be collected in such a manner as to avoid injury.
g. Keep your work area clean and safe.
h. Put items that might cause slips, trips, or falls in proper receptacles.
i. Do not bring glass bottles into the work area.
j. Throw rubbish and waste materials in the can provided for this purpose.
k. Surplus bolts, nuts and welding rod stubs, tools, etc. should be removed promptly from the ground and floor areas.
l. Excess materials, cutting and tools must be removed as promptly as possible from the job site after completion of the work.
m. All hoses should be returned immediately after use to storage racks provided.
n. Materials are not to be stored or left in aisles or walkways.
o. Drains shall be covered properly and shall be kept free of debris to prevent clogging.
p. Spills shall be cleaned up immediately.
q. Floors should be kept clean and in good repair.
r. Clean and orderly storage areas shall be maintained.
s. All stacked material shall in straight rows and evenly stacked.

3.9 FIRE PREVENTION

a. Always take precautions to prevent fires which may be started from oily waste, rags, gasoline and other flammable liquids, acetylene torches, improperly installed electrical equipment, and trash.
b. Firefighting equipment is to be inspected on a regular basis. All discharged, damaged, or missing equipment is to be immediately reported to a supervisor.
c. Access to fire extinguishers must be kept clear at all times.
d. Never use gasoline for cleaning purposes.
e. Smoking is prohibited at all times within 20 feet of flammable substance storage.
f. Make note of the location of firefighting equipment in your work area.
g. Tampering with fire equipment is prohibited.
h. In case of fire, employees shall consider the safety of themselves and other individuals before saving property.

3.10 HAND TOOLS AND POWER TOOLS

a. Know hand tool and power tool applications and limitations.
b. Do not use tools that are faulty or damaged in any way. Exchange for safe tools immediately.

c. Hold cold chisels so knuckles are protected in case the hammer misses the head. Chisels being struck by others should be held by vise grips or similar holding devices.
d. Never strike a chisel with a claw hammer or other tempered tools.
e. Do not use a screwdriver as a chisel.
f. Before using sledges, axes, or hammers, be sure handles are securely fastened with a wedge of sound material.
g. Files should be equipped with handles and should not be used as a punch or pry.
h. All power tools are to be plugged in to a grounded outlet or be of the double-insulated type.
i. Do not use power tools in explosive atmospheres.
j. Keep all safety guards in place and in proper working order.
k. Use clamps or vices to secure work pieces.
l. Only personnel authorized by a supervisor may operate power tools.
m. Do not force hand power tools. Apply only enough pressure to keep the unit operating smoothly. If overloading occurs, relieve the pressure.
n. Do not lift, lower, or carry portable electrical tools by the power cord.
o. When working above other employees where handling power tools is a problem, the tool may be hung from a secure, stable object.
p. Return all tools and other equipment to their proper place after use.
q. Unplug all power tools before changing bits and/or grinding/cutting discs/wheels.
r. Remove chuck keys before operating tool.

3.11 General Shop Machinery and Equipment Safety

a. Never operate, service, repair, or adjust any machinery without proper instructions from a supervisor and without reading and understanding the instruction manual.
b. Do not remove or modify guards and/or other safety devices at any time.
c. If it is necessary to remove a guard for service, be sure to lockout the machinery prior to removing the guard. Replace the guard before unlocking the equipment.
d. Report all missing guards promptly to a supervisor.
e. Check to see if guards and other protective devices are properly adjusted. Do not operate machine until it is properly guarded.
f. Do not repair or adjust machinery while in operation. Oiling of moving parts is also prohibited except on equipment that is designed or fitted with safeguards to protect the employee.
g. Follow the lockout/tagout procedure for all machinery and equipment prior to cleaning or repairing.
h. Remove any chuck keys prior to operating equipment.
i. Do not stand, sit, or lean on any stationary or moving part of any machine during operation.
j. Only one qualified operator controls the operations of the machine.

3.12 Chemical Safety

a. Read all the warning labels and SDS before using any chemicals.
b. Hazardous materials shall be handled in accordance with the SDS. SDS contain personal protection and safety information and are available on tablets.
c. If protective equipment is required, review its use with a supervisor prior to beginning work.
d. Mixing of chemicals is prohibited at all times unless under the immediate direction of a supervisor. Review SDS before mixing.
e. Always wash hands thoroughly after handling chemicals, even if wearing protective gloves.
f. Use chemicals only in well ventilated areas.
g. Make sure acids are placed in a secure spot where they cannot be spilled.
h. Do not use glass containers for acid - use only approved shatterproof containers.
i. When using secondary containers filled by others, ensure they are labeled with their contents and hazards.

3.13 Lockout/Tagout Safety

a. Notify all affected employees that a lockout/tagout is required.
b. If the equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.)
c. Operate the switch, valve, or other energy isolating devices so the energy source(s) (electrical, mechanical, hydraulic, etc.) is disconnected or isolated from the equipment. Stored energy, such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, or water pressure, etc., must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
d. Lockout energy isolation devices with an individual lock.

e. After ensuring no employees are exposed and checking that the energy sources have been disconnected, operate the push button or other normal operating controls to make certain the equipment will not operate. Caution - return operating controls to the neutral position after the test.
f. The equipment is now locked/tagged out. Install red lockout tag on operating controls.
g. After work on equipment is complete and the equipment is ready for testing or normal operation, check the equipment to see that all cover plates and safety devices have been reinstalled.
h. When the equipment is clear, remove all locks and tags. The energy isolating devices may be operated to restore energy to the equipment.

3.14 WELDING AND CUTTING SAFETY

a. *Arc Welding Safety* – Arc welding safety rules consist of the following:
   - Make sure welding equipment is installed properly and grounded and is in good working condition.
   - Always wear proper eye protection when welding or cutting.
   - Always wear protective clothing suitable for welding.
   - Keep your work area clean and free of hazards. Make sure that no flammable, volatile or explosive materials are in or near the work area.
   - Do not weld in confined spaces without special precautions and/or supervisor's authorization.
   - Do not weld on containers that have held combustibles without special precautions and/or supervisor's authorization.
   - Use mechanical exhaust at the point of welding when welding lead, cadmium, chromium, manganese, brass, bronze, zinc, or galvanized metals.
   - Make sure all electrical connections are tight and insulated. Do not use cables with frayed, cracked, or bare sports in the insulation.
   - When the electrode holder or welding torch is not in use, hang it on brackets provided. Never let it touch a compressed gas cylinder.
   - Dispose of electrode holder and wire stubs in proper container since stubs and rods on the floor are a safety hazard.
   - Use weld curtains to shield others from the light rays produced by the arc.
   - Keep leads orderly and out of walkways. Suspend them whenever possible.
   - Do not weld if leads or machine is in or near water.
   - Make sure a portable fire extinguisher is nearby.

b. *Resistance Welding Safety* – Resistance welding safety rules consist of the following:
   - Make sure resistance welding equipment is installed properly, grounded, and in good working condition.
   - Always wear protective clothing suitable for welding.
   - Always wear proper eye and hand protection when operating the welding equipment.
   - Keep your work area clean and free of hazards.
   - Keep your fingers and hands clear of electrodes.
   - Do not touch the weld spot until it has had time to cool.
   - Position weld screens to protect others.

c. *Oxy-Fuel Cutting and Welding Safety* - Oxy-fuel cutting and welding safety rules consist of the following:
   - Make sure all gas welding equipment is installed properly and is in good working condition.
   - Make sure all connections are tight before lighting the torch. Do not use the flame to inspect for tight joints. Use a soap solution to detect leaks.
   - Always wear protective clothing suitable for welding, brazing, soldering, or flame cutting.
   - Always wear proper eye protection when welding, brazing, soldering, or flame cutting.
   - Keep your work area clean and free of hazards. Flame cutting sparks can travel up to 30-40 feet. Do not allow flame cut sparks to hit hoses, regulators, or cylinders.
   - Handle all compressed gas cylinders with extreme care. Keep caps on when not in use.
   - Make sure compressed gas cylinders are secured to the equipment carriage, wall, or other structural supports.
   - Store compressed gas cylinders in a safe place with good ventilation. Acetylene cylinders and oxygen cylinders should be kept at least 20 feet apart.
   - When compressed gas cylinders or fuel gas cylinders are empty, close the valve, install the cap, and return to correct bottle storage area.
   - Use oxygen, acetylene, or other fuel gases with only the appropriate torches and tips.
   - Oxygen should not be used for "AIR" in any way.
   - Never use acetylene at a pressure in excess of 15 psi. Higher pressure can cause an explosion.

- Never use oil, grease, or any other material, on any apparatus or thread fitting in the oxyacetylene or oxyfuel gas system. Oil and grease in contact with oxygen will cause spontaneous combustion.
- Do not turn valve tee handle using excessive force.
- When assembling apparatus, crack gas cylinder valve before attaching regulators. This blows out accumulated foreign material. Make sure all threaded fittings are clean and tight.
- Always use the correct sequence and technique for assembling and lighting the torch.
- Always use the correct sequence and technique for shutting off a torch.
- Use mechanical exhaust at the point of welding when welding lead, cadmium, chromium, manganese, brass, bronze, zinc, or galvanized metals.
- Do not weld in confined spaces without special precautions and/or supervisor's authorization.
- Do not weld on containers that have held combustibles without special precautions and/or supervisor's authorization.
- Use weld curtains to shield others from the light rays produced by your gas welding.
- Handle all compressed gas cylinders with extreme care. Replace protective caps when the cylinder is not in use.
- Make sure compressed gas cylinders are secured to the equipment carriage, wall, or other structural supports.
- When compressed gas cylinders are empty, close the valve, install the cap, and return to correct bottle storage area.
- Make sure all compressed gas connections are tight and check for leaks. Do not use hoses that are frayed or cracked.

3.15 LADDER SAFETY

a. Arrange work so the user faces the ladder and both hands are used while climbing.
b. Keep portable stairways, ladders and step stools in good condition and use only in a safe manner.
c. Never repair a broken ladder, tag damaged ladders, and remove them from service.
d. Only non-conductive ladders are permitted.
e. Make sure ladder feet are not placed on sandy or slippery surfaces. Clean or sweep the area where the ladder feet will be placed.
f. Secure portable ladders in place, at a pitch so that the distance from the wall to the base of the ladder is at least ¼ the vertical height of the ladder.
g. Fall protection is required when working on ladders at or near shafts or leading edges.
h. Extension ladders shall extend at least 36 inches above any access level.
i. Do not place ladders in passageways, doorways, driveways, or any location where they might be hit or jarred, unless protected by barricades or guards.
j. Be aware of the objects below you. Move or cover sharp objects.
k. Do not stand on or work from the 2nd rung from the top or above.
   - When using an extension ladder, follow manufacturer safety recommendations regarding minimum overlap. If not available, use the following guidelines: up to 36 feet- 3-foot overlap, 36 to 48 feet-4-foot overlap.
l. Do not step on cross bracing that is not intended for climbing.
m. Stepladders must be fully opened and locked when in use.
n. Ladders must be inspected prior to use.
o. Ladders with missing or damaged feet shall not be used.
p. The ladder must be placed in a position that will not require the user to lean or over extend their body past the side rails.
q. If the ladder needs to be adjusted in position or placement, the user must fully descend to make the required adjustments.
r. Planks shall not be used on ladders to create work platforms. Ladders shall not be used in the horizontal position as a platform, runway, or scaffold.
s. Ladders shall be labeled as being designed and manufactured in accordance with the ANSI A-14.2 requirements.

3.16 POWERED INDUSTRIAL TRUCK (FORKLIFT) SAFETY

a. Only properly trained and authorized operators are permitted to operate forklifts. Safety belts MUST be worn at all times when in the operator's seat.
b. Inspect forklifts prior to each use. Inspect all hydraulic lines, cables, lights, tire conditions, audible devices (horn, reverse alarm), and correct defects or damaged parts. Immediately report to a supervisor any obvious defects or required repairs.
c. Do not overload the forklifts. Adhere to manufacturer's load chart that must be posted in the cab of the forklift.
d. Always use the proper size pallet with load properly secured. Position loads evenly on the forks for proper balance, utilizing the maximum possible fork width spacing.
e. Never elevate a load with the forklift truck tilted to one side.
f. Do not permit anyone to stand between or under elevated forks.
g. Keep hands and feet out of the mast assembly.

h. Do not elevate the load with the mast tilted forward.
i. Carry loads as close to the floor/ground as possible.
j. Keep the load against the backrest, with the mast tilted backwards.
k. Keep your forklift truck under control at all times. Unsafe driving and horseplay are prohibited while operating forklifts.
l. Go slow and sound the horn at corners.
m. Avoid running over loose objects.
n. Always watch load and mast for overhead and side clearances.
o. Keep hands and feet inside the cab.
p. Watch that the rear end swing does not contact persons or materials.
q. For better vision with bulky loads, drive backwards.
r. Always drive on a ramp with the load facing uphill.
s. Do not use the forklift as a personnel lift unless personnel lift basket is issued. Raise and lower personnel in baskets no faster than 2 feet per second. Operator must be at the controls at all times when personnel are in the lift basket.
t. Do not carry passengers.
u. Shut off your forklift when leaving it unattended.
v. No smoking while refueling.
w. Always look before backing up.
x. Forklift shall not be driven up to a person in front of a bench or other fixed object.
y. Know the rated capacity of the forklift truck and do not exceed its rated capacity.
z. Shut off the propane tank, remove the tank from forklift, and secure outside of the building in the area provided at the end of the last working shift.

3.17 VEHICLE DRIVER SAFETY

a. Only authorized employees are permitted to operate Watertap Inc vehicles.
b. Drive defensively and obey all traffic and highway laws.
c. Always wear the seat belt - passengers and drivers.
d. Report all accidents as soon as possible to a supervisor and obtain a police report.
e. Keys must be removed from all unattended vehicles and the vehicles must be locked.
f. Report any vehicle defects, operating problems, or missing parts to a supervisor.
g. No smoking while refueling.
h. Mobile phones should not be used when refueling.
i. If driver's license is revoked or expired, immediately notify a supervisor, and do not drive.

4.0 VERIFICATION OF RECEIPT

Verification of Receipt
Code of Safe Work Practices

I have received a copy of the Code of Safe Work Practices "General Safety Rules", which is a part of Watertap Inc Safety Program. I understand it is my responsibility to comply with all the rules set forth in this document, and I agree to support the Safety Program to the best of my ability.

The rules and work practices contained within this document are not intended to be the only and all-inclusive guideline for each category for work activity. Safety procedures and guidelines for specific categories of work activity are contained within the Safety and Health Manual. These procedures and guidelines should be reviewed and followed in addition to the safety rules and safe work practices contained in the Code of Safe Work Practices.

Employee Name (Print): _____

Signature: _____

Date: _____

Return this form to your supervisor after completion.

Disciplinary Policy

1.0 PURPOSE

The purpose of this section is to establish the guidelines for enforcing the provisions of the safety program.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. All employees are required to abide by the provisions of our safety program.
b. Any act found to be in noncompliance with OSHA or any policy, or procedure, within our safety program shall be considered a "Safety Violation". Violations of these requirements or failure to follow safety instructions will be grounds for disciplinary action.
c. This disciplinary procedure shall be used for the minimum enforcement levels. The severity of violations may be grounds for more severe action, such as longer suspensions or immediate termination/discharge.
d. For Watertap Inc employees, a Safety Violation Form shall be completed by the supervisor and signed by the offending employee.
e. For all others, a Notice to Comply and/or Notice of Safety Violations shall be sent to the appropriate supervisors and management.

4.0 RESPONSIBILITY

4.1 SUPERVISOR

The Supervisor shall be responsible for the enforcement of the disciplinary policy.

4.2 SAFETY DIRECTOR

The Safety Director is responsible for reviewing the Disciplinary Policy and its full efficacy. The Safety Director shall have the final decision in the resolution of all disputes involving the Safety Program.

5.0 ENFORCEMENT

a. A foreman or general supervisor who knowingly or negligently permits a violation of this safety program, any safety laws, rules, regulations, company rules, policies or instructions which results, or could result in serious personal injury, property damage or damage to company equipment or a safety citation shall, after a complete investigation, be subject to disciplinary action appropriate for the severity of the violations. The following shall be considered minimums:
   - 1st Instance - verbal warning with written documentation
   - 2nd Instance - placed on probation with written documentation
   - 3rd Instance - termination of employment (for Watertap Inc employees), removal from site (for Watertap Inc contractors)
b. All other employees who knowingly violate this safety program, any safety laws, rules, regulations, company rules, policies or instructions which results, or could result in serious personal injury, property damage or damage to company equipment or a safety citation shall, after a complete investigation, be subject to disciplinary action appropriate for the severity of the violations. The following shall be considered minimums:
   - 1st Instance - verbal warning with written documentation
   - 2nd Instance - placed on probation with written documentation
   - 3rd Instance - termination of employment (for Watertap Inc employees), removal from site (for Watertap Inc contractors)
a. **'Immediate Removal' Citations** will result when:
   - Any employee or supervisor exposes themselves or others to eminent loss of life.
   - Any employee or supervisor openly exhibits disregard, defiance, or disrespect for the Safety Program.
   - Any employee or supervisor knowingly falsifies any investigative document or testimony within an investigation.
   - Violent physical encounters (fighting) occur. All workers involved in the incident are subject to removal.
   - Threats are made against any safety personnel performing their duties.
   - Theft or destruction of property occurs.
   - Any employee or supervisor consumes, possesses, distributes or is under the influence of alcohol and/or drugs.

6.0 ATTACHMENTS

a. Attachment 7 – Safety Violation Form
b. Attachment 8 – Notice to Comply
c. Attachment 9 – Notice of Safety Violations

Emergency Action Plans

1.0 PURPOSE

a. The purpose of this section is to establish the requirements to be followed to ensure that an effective Emergency Action Plan has been prepared and implemented for each project site.
b. This section is intended to establish protocol for preparing and responding to an emergency that may arise out of business operations.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. This section outlines and reviews the basic principles for the development of an "Emergency Action Plan" to ensure the safety and efficiency when responding to emergencies.
b. This emergency action plan has the following objectives:
   - To provide effective action to minimize injuries and loss of life among company personnel in the case of emergency during business hours.
   - To protect company property.
   - To implement, as soon as possible, recovery operations.
   - To provide effective education to all personnel, in the area of preparedness, in case of an emergency during business hours.
c. In the event of an emergency, the Project Manager shall be contacted immediately.

4.0 PROCEDURES

4.1 EMERGENCY CALLING PROCEDURES

In case of an emergency, when outside emergency services are required, these steps should be taken:
- Pick up the nearest phone and dial 9-1-1 (for outside emergency services).
- Give the following information:
  - Your name
  - The Company's Name
  - Location (address, intersection, location on site)
  - Nearest cross street
  - Type of emergency (fire, medical, chemical spill)
  - Telephone number you are calling from
- Do not hang up until you are certain the person receiving the call has all the information necessary.

4.2 EVACUATION PROCEDURES

a. For each office, project, and shop location, develop an evacuation plan. Designate specific responsibility to employees and supervisors.
b. Develop a communication system, which will alert employees of the need to evacuate. Train employees in the communication process.
c. Designate specific reunion/meeting locations
d. Conduct evacuation drill semi-annually.

4.3 FIRE PROCEDURES

a. Fire preparedness:
   - Locate the fire extinguisher nearest to your work area.
   - Be familiar with the locations of all emergency exits and evacuation routes. Keep exits and evacuation routes clear.
   - Know what action to take in the event of a fire.
b. In the event of a fire near you:
   - Upon discovery of a fire, notify the fire department by calling 9-1-1, giving them the following information:
     - Address you are calling from
     - Name
     - Phone number
     - Type of Emergency
     - Stay on the phone until the emergency operator hangs up.
   - In the event of a fire and you elect to fight the fire by use of a fire extinguisher, you should know these steps:
     - Pull the pin off the fire extinguisher.

- Aim the nozzle of the extinguisher so it discharges at the base of the fire.
- Sweep the nozzle with a side-to-side motion across the entire width of the fire.
- Always fight the fire with your back to an exit.
- Do not allow yourself to become trapped.

c. After extinguishing the fire, move back and watch for a possible flashback of the fire. Do not turn your back on the fire or fire affected area. Always back away from the scene.

d. After the extinguisher is discharged, remember to have the fire extinguisher re-serviced and re-hang it. Never re-hang a used or discharged extinguisher.

e. If it is safe to do so, the fire should be fought with portable extinguishers until the fire department arrives. Keep in mind that your personal safety is of prime importance.

4.4 WHEN INSTRUCTED TO EVACUATE

a. Evacuate by the nearest, safe exit and evacuation route.

b. Report to a designated reunion/meeting location.

c. Render assistance only when requested from the fire department or emergency services.

4.5 TRAINING

a. All employees shall be trained in the Emergency Response procedures for each site they will be performing work.
   - Evacuation route and muster areas
   - Alarm systems
   - Areas to avoid during emergencies

b. Site Supervisor Training:
   - Evacuation route
   - Muster areas
   - Alarm systems
   - Areas to avoid during emergencies
   - Accident investigation and equipment (i.e., camera, tape ruler, notebook, pen, Watertap Inc Forms)
   - Reporting incidents

Emergency Action Plans
Hazardous Waste Operations

1.0 GENERAL

a. When work is required near, or in, hazardous waste operations Watertap Inc shall evaluate all related safety and health hazards and provide emergency response.
b. A site evaluation shall be conducted prior to the commencement of any work. The site evaluation shall identify potential site hazards and completed by a qualified person.
c. A site control program shall be implemented to protect employees against hazardous contamination. The program, at a minimum, shall include the following:
   - Site map, including work zones
   - Site communications
   - Safe work practices
   - The use of a "buddy system"
   - Identify the nearest medical aid
d. An informational program shall be made readily available and shall include descriptions of any exposures during operations.
e. Decontamination procedures and emergency response plans shall be developed and implemented prior to employees starting work near, or in, hazardous waste operations.
f. Watertap Inc shall develop and implement procedures for introducing effective and new technologies that provide improved worker protection (i.e. foams, absorbents, neutralizers, etc.).

2.0 EMERGENCY RESPONSE

a. Watertap Inc shall develop and implement an emergency response plan and procedures prior to site mobilization, and to which will be adhered to by all employees.
b. The Safety Director shall manage the emergency response plan and shall be the senior official and have responsibility for controlling operations at the site.
c. The emergency response plan shall, at a minimum, include the following:
   - Personnel roles, lines of authority, and communication procedures,
   - Pre-emergency planning,
   - Emergency recognition and prevention,
   - Emergency medical and first-aid treatment,
   - Methods or procedures for alerting onsite employees,
   - Safe distances and places of refuge
   - Site security and control,
   - Decontamination procedures,
   - Critique of response and follow up,
   - Personal protective and emergency equipment
   - Evacuation routes and procedures.
   - Site topography and layout
   - Prevailing weather conditions
   - Procedures for reporting local, state, and federal government agencies.
d. Watertap Inc shall regularly rehearse the emergency response plan.
e. The emergency response plan shall be periodically reviewed and amended, as necessary, to keep current with new or changing site conditions or information.
f. The emergency plan shall be made available for inspection and copying by employees, their representatives, OSHA personnel, and other governmental agencies with relevant responsibilities.

3.0 MEDICAL SURVEILLANCE

Contractors whose employees meet any of the specifications listed (1.4(a) through 1.4(d)) shall provide medical surveillance examinations to those employees as specified below (1.4(e) through 1.4(h)).

a. All employees exposed or potentially exposed to hazardous substances or health hazards above permissible exposure limits for more than 30 days per year;
b. Workers exposed above the published exposure levels (if there is no permissible exposure limit for these substances) for 30 days or more a year;
c. Workers who wear approved respirators for 30 or more days per year on site;

d. Workers who are exposed to unexpected or emergency releases of hazardous wastes above exposure limits (without wearing appropriate protective equipment) or who show signs, symptoms, or illness that may have resulted from exposure to hazardous substances and members of hazardous materials (HAZMAT) teams.
e. All examinations must be performed under the supervision of a licensed physician, without cost to the employee, without loss of pay and at a reasonable time and place. Examinations must include a medical and work history with special emphasis on symptoms related to the handling of hazardous substances and health hazards and to fitness for duty including the ability to wear any required personal protective equipment under conditions that may be expected at the work site. These examinations must be given as follows:
   - Prior to job assignment and annually thereafter (or every 2 years if determined by physician)
   - At the termination of employment,
   - Before reassignment to an area where medical examinations are not required,
   - If the examining physician believes that a periodic follow up is medically necessary, and
   - As soon as possible for ill, injured, or overexposed employees from exposure to hazardous substances.
f. Watertap Inc shall provide the examining physician with the following:
   - A copy of the standard
   - A description of the employee's duties relating to his or her exposure
   - The exposure level or anticipated exposure level
   - A description of any personal protective and respiratory equipment used, or to be used
   - Any information from previous medical examinations
g. Watertap Inc must obtain a written opinion from the physician that contains the results of the medical examination and any detected medical conditions that would place the employee at an increased risk from exposure, any recommended limitations on the employee or upon the use of personal protective equipment, and a statement that the employee has been informed by the physician of the medical examination.
h. The physician is not to reveal, in the written opinion given to the employer, specific findings or diagnoses unrelated to employment.

4.0 TRAINING

a. All Watertap Inc employees shall be trained in the in the recognition of hazard and reporting hazardous substance release, and to the first responder awareness level.
b. All employees shall be trained to the level as required by their job function, and responsibility, prior to performing any hazardous waste operations.
c. All employees are required to be trained in the following:
   - Recognition of hazardous materials, and their risks
   - Procedures on how to properly select and use appropriate PPE
   - Understand the appropriate control, containment, or confinement procedures and how to properly implement them.
d. All training shall be certified, documented, and administered by a qualified trainer. Credentials and/or experience of the trainer shall be verified
e. All employees shall complete refresher training annually.
f. Watertap Inc shall ensure contractors working near, or in, hazardous waste operations have the required training as specified above.

Emergency Action Plans
Pandemic Preparedness

1.0 PURPOSE

The purpose of this section is to establish the requirements to be followed to prevent the spread of a pandemic virus by employees.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local or Owner's requirements, or Executive Orders.

3.0 GENERAL

a. An adequate pandemic preparedness policy allows for the safe continuation of critical business functions.
b. The spread if the seasonal influenza virus is an epidemic.
c. Epidemic and pandemic outbreaks can last for weeks or months depending on severity and contagiousness of a virus.
d. The World Health Organization (WHO) has developed six (6) phases for assessing the potential of a pandemic.
e. The Centers for Disease Control and Prevention (CDC) has developed the Influenza Risk Assessment Tool (IRAT) for assessing the potential of a pandemic.

4.0 DEFINITIONS

a. Epidemic – a widespread outbreak of an infectious disease within a community or region
b. Outbreak – a sudden increase in the incidence of an infectious disease
c. Pandemic – a widespread outbreak (or epidemic) throughout multiple countries or continents.
d. Recommended Time – time frame as determined by the CDC, State or Local orders, or health department
e. Worker – refers to both Watertap Inc employees and employees of contractors, vendors, etc.

5.0 RESPONSIBILITIES

5.1 SAFETY DIRECTOR

The Safety Director shall act as Plan Administrator. In the event of an outbreak, the Safety Director shall monitor both the WHO and CDC assessments to determine if the Pandemic Preparedness Plan shall be executed and shall notify the Office Management and Project Management of execution and to which level.

5.2 OFFICE MANAGEMENT

Office Management shall be responsible for informing employees, and other visitors of the precautions and procedures to be taken based on level of pandemic. Office Management shall be responsible for ensuring the office is adequately equipped and stocked of necessary equipment and supplies for pandemic levels.

5.3 PROJECT MANAGEMENT

Project Management shall be responsible for informing employees and vendors on-site of the precautions and procedures to be taken based on level of pandemic. Project Management shall ensure sites have adequate inventory of equipment and supplies. Project Management shall ensure employees' compliance with the Pandemic Preparedness Plan.

5.3 EMPLOYEES

Employees shall review and comply with the Pandemic Preparedness Plan. Employees shall adhere to the "Work-At-Home, Stay-At-Home" policy if they should become ill and immediately notify their supervisor. Employees shall be permitted to return to work until recommended time has passed or cleared by a license physician.

6.0 PROCEDURES

6.1 RISK ASSESSMENT

a. In relation to the WHO Pandemic Phases, the Watertap Inc Pandemic Preparedness Plan shall not be executed until WHO Phase 3. At which point the progression of the pandemic and changes to the current WHO Phase will be closely monitored.
b. The following shall be completed at each WHO Phase:
   - WHO Phase 3:
     - The Safety Director shall inform Office Management and Project Management of a potential pandemic.
   - WHO Phase 4:
     - All employees and sites may continue normal business activities.
     - If outbreak area is localized to the Watertap Inc region, Office Management and Project Management shall begin preparations for their respective locations.
   - WHO Phase 5:
     - All employees and sites may continue normal business activities.

- If outbreak area is localized to the Watertap Inc region, Office Management and Project Management shall begin precautions for their respective locations. Level of precautions shall be based on possibility of spreading infectious disease.

- WHO Phase 6:
  - All employees and sites may continue normal business activities unless otherwise directed by the State of Michigan or local ordinances.
  - If outbreak area is localized to the Watertap Inc region, employees will be instructed to work-from-home if possible. Evaluate feasibility of limiting personnel or staggering shifts to limit overall workforce on-site.

6.2 OFFICE PREPARATIONS AND PRECAUTIONS

a. Office Preparations shall include procurement of adequate stock of the following:
   - Technology for employees to work-from-home.
   - Cleaning supplies and equipment for both the offices and project sites. All-purpose cleaners are not disinfectants.
   - Personal protective equipment including masks and gloves for both the offices and project sites.

b. Office Precautions shall include the following:
   - Prohibiting visitors into the office
   - Limiting number of employees permitted to work in the office.
   - Prohibiting employees who have recently traveled to area(s) with an outbreak to be in office
   - Limiting or refraining from in-person meetings; utilize telecommunications
   - Hand sanitizers or disinfectants situated throughout office
   - Use of PPE as deemed necessary
   - Social distancing
   - Employee screening, if necessary
   - Working surfaces, offices, and frequently touched surfaces shall be cleaned daily.

6.3 SITE PREPARATIONS AND PRECAUTIONS

a. Site Preparations shall include the following:
   - Ensuring adequate stock of cleaning supplies and personal protective equipment on-site
   - Hand-washing or sanitizing stations are on-site and fully equipped/stocked

b. Site Precautions shall include the following:
   - Limiting visitors on-site
   - Limiting or refraining from in-person meetings; utilize telecommunications
   - Hand sanitizers or disinfectants situated throughout site
   - Use of PPE, if necessary
   - Social distancing
   - Prohibiting workers who have recently traveled to area(s) with an outbreak to be on-site
   - Worker screening, if necessary
   - Working surfaces, site offices, tools, equipment, and other frequently touched surfaces shall be cleaned daily, or after each use.

6.4 WORK-AT-HOME, STAY-AT-HOME

a. Applies to any employee who becomes ill or develops symptoms of current pandemic infectious disease.
b. Employees shall not come into the office or on to the site for work. Instead, work at home utilizing telecommunications.

6.5 WORK-FROM-HOME

a. Applies to employees who are otherwise healthy and 1) not able to work in the office or on site due to local outbreak of infectious disease; or 2) must care for others
b. Employees will be equipped with the necessary technology to complete their work from home.

6.6 OUTBREAK OF INFECTION

a. If a large percentage of personnel become ill, work shall continue only if all tasks can be completed in a safe manner that abides by the rules set forth in this program.
   - Office and Site Precautions will be implemented
b. In the event of an outbreak, internal and external communication systems shall be implemented to include postings, memos, phone calls, emails, etc.
c. In the event of an outbreak, all meetings and/or large gatherings shall be cancelled or conducted using telecommunications, if possible.

6.7 INFECTION INCIDENT PLAN

a. If a worker becomes ill, they shall be isolated and removed from premises.
   - All workers who came into contact with the infected worker shall be removed from premises. Readmittance following medical surveillance or recommended time has passed.
   - All surfaces touched by infected worker shall immediately be disinfected.

b. If a worker is potentially infected (either through contact with confirmed-infected person, or exhibiting symptoms of illness), the previous steps shall be taken. (Isolation, Removal, Disinfection)

6.8 RETURN TO WORK

a. When WHO Phase 6 has decreased, current wave of pandemic has passed, or deemed safe by the State of Michigan or local ordinances, employees shall be permitted to return to normal business activities.
b. If deemed necessary, certain precautions will remain in effect.

6.9 IMMUNIZATIONS AND VACCINATIONS

a. Employees are encouraged to receive proper immunizations and vaccinations.
b. No employee will be required to receive vaccinations.

6.10 TRAINING

a. Periodic table-top exercises will be conducted to ensure efficacy of the Pandemic Preparedness Plan.
b. All employees shall be trained in illness prevention which includes:
   - Company policy and procedures
   - Steps to avoid the spread of illness
   - Proper hand washing and other hygienic methods (i.e. cough etiquette, care of proper PPE, maintain separation of at least 6 feet, etc.).
   - Periodic routine cleaning/disinfection of work surfaces (i.e. equipment and tools, lunch tables, door knobs, faucets, handrails, etc.).
c. Employees shall be re-trained if they lack understanding or compliance with the Pandemic Preparedness Plan.
d. Employees shall receive refresher training if:
   - Changes are made the current Pandemic Preparedness Plan
   - After a pandemic event
   - Or, at least annually, if neither of the above conditions exist

6.11 PROGRAM REVIEW

a. The Pandemic Preparedness Plan shall be reviewed by the Watertap Inc Safety Director after each pandemic event or, at least, annually.
b. As part of the review process, the Safety Director shall involve Office Management and Site Management to provide input on necessary improvements or adjustments for the plan; and create a lessons-learned for employees.

Meetings

1.0 PURPOSE

The purpose this section is to provide information regarding required safety related meetings.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 PROCEDURE

3.1 MEETING - PRE-CONSTRUCTION

a. Watertap Inc, before starting work at a project site, shall arrange a pre-construction meeting to be made aware of the project conditions and safety requirements.
b. A project site tour shall be completed to identify potential safety hazards. Any specialty or non-routine items shall be noted, and a proper procedure shall be developed.
c. Watertap Inc shall ensure a safe workplace to employees by providing appropriate methods, equipment, devices and material.

3.2 MEETING - ORIENTATIONS

a. Orientation meetings shall be held prior to the commencement of work.
b. All employees are required to attend orientations.

3.3 MEETING - TOOLBOX TALKS

a. Toolbox talks shall be held weekly, at the minimum, and after a learning event (i.e. accident, near miss, training, etc.).
b. Toolbox talks are designed to assist supervisors at all levels to deliver safety related information.
c. It is the responsibility of the Safety Representative to ensure that these talks are carried out and to appoint a competent person who shall be responsible for ensuring that toolbox talks take place.
d. Toolbox talk topics should be selected based on project conditions or known hazardous work activity taking place.
e. The Safety Representative will make suggestions as to relevant toolbox talks.
f. After accidents and near-misses, a toolbox talk shall be conducted that correlates to the nature of the accident/near-miss as soon as possible.
g. All attendees shall sign and date the toolbox talk form after it is completed.
h. The signed copy of the toolbox talk form shall be submitted to the Safety Representative for record keeping.
i. Be sure to note any special, job-specific items or questions that may have been covered during the toolbox talk.
j. Watertap Inc employees will be provided their toolbox talk forms from the Watertap Inc Site Management, or the main office.

Protection of the Public

1.0 PURPOSE

The purpose of this section is to establish the requirements to be followed to afford the general public and non-construction personnel.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 PROCEDURE

3.1 ACCESS TO THE SITE

No work shall be performed in any area occupied by the public unless specifically reviewed and permitted by Watertap Inc. In that the project interfaces with the public, precautions to be taken include, but are not limited to:

- Watertap Inc shall take such necessary action as is needed to protect and maintain public use of sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, exits and vehicular roadways.
- Watertap Inc shall protect the public with appropriate sidewalk sheds, canopies, catch platforms, fences, guardrails, barricades, shields, and adequate visibility as required by laws and regulations of governing authorities. Such protection shall guard against flying materials, falling, or moving materials and equipment, hot or poisonous materials, flammable or toxic liquids and gases, open flames, energized electric circuits or other harmful exposures.
- Guardrails shall be made of rigid materials complying with the requirements for standard guardrails as defined by OSHA and the Safety and Health Manual.
- Temporary sidewalks, ramps or stairs shall be provided with guardrails on both sides whenever permanent sidewalks, ramps or stairs are obstructed by the work. Watertap Inc may authorize barricades, secured against accidental displacement, meeting the requirements of local authorities, where fences, sheds, walkways and/or guardrails are impractical. During the period when any barricade, fence, shed, walkway, or guardrail is removed for the purpose of work, a watchman shall be placed at all openings.
- Appropriate warnings, signs and instructional safety signs shall be conspicuously posted where necessary. In addition, a signalman shall control the moving of motorized equipment in areas where the public might be endangered. Warning lights, including lantern, torches, flares and electric lights, meeting the requirements of governing authorities shall be provided and maintained from dusk to sunrise along guardrails, barricades, temporary sidewalks and at every obstruction to the public. These warning signs and lights shall be placed at both ends of such protection or obstruction and not over 20 feet apart alongside of such protection or obstructions.
- With respect to operations being performed on public roadways, all DOT and/or municipality requirements towards public safety will be strictly observed.
- Access to the site is limited to the entrance designated for construction and controlling contractor.
- Fire hydrants and all designated fire lanes shall remain clear at all times for the use of emergency vehicles.

3.2 AUTHORIZED VISITORS AND TOUR GROUPS

a. All visitors and tour groups to the project are required to register with Watertap Inc upon arrival. All visitor passes will expire upon departure from the project.
b. All visitors and tour groups will be required to wear appropriate clothing (i.e., slacks and low-heeled shoes). PPE such as hard hats, safety glasses, etc. will be provided as required.
c. Children ages 12 and up are required to be accompanied by an adult. Children under the age of 12 are not permitted on projects.
d. Immediately prior to entering the project, all visitors shall be briefed about the need for careful and orderly conduct, including mention of any special hazards, which may be encountered.
e. Contractors are expected to regulate their visitors in accordance with the guidelines of this section.
f. All personnel who are responsible for the organization, direction and safe conduct of the tours shall be in compliance with the following guidelines:
   - All group tours will be cleared through the Owner's representative and Watertap Inc allowing for maximum notice.
   - All tours will be coordinated by Watertap Inc to accommodate the project schedule, to make necessary preparations, and to assure safety precautions are observed.
   - Individual tour groups in non-hazardous areas should be limited to no more than 10 persons per tour guide (i.e., a tour group of 20 will require at least two tour guides).

Substance Abuse Policy

1.0 PURPOSE

a. The purpose of this section is to establish a drug-free work environment for each and every worker.
b. This section is an extension of the effort by Watertap Inc to protect people and property and to provide a safe working environment.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local codes or Owner's requirements.

3.0 GENERAL

a. Watertap Inc prohibits the use, possession, distribution, or sale on the project premises, facilities, or workplaces of any of the following: alcoholic beverages, intoxicants, drugs, and related drug paraphernalia.
b. All workers (employees and contractors) are expected to abide by the guidelines set forth in the Substance Abuse Policy. Employees found to be in non-compliance of this policy are subject to termination. Contractors found to be in non-compliance of this policy are subject to removal from project.
c. Workers must not report for duty or perform work while under the influence of any drug, alcoholic beverage, or intoxicant. Workers on the project premises will be subject to search as provided herein. Applicants and workers will be required to consent to drug testing as provided herein.
d. This policy will apply where state law or regulation and/ or collective bargaining agreements allow.

4.0 DEFINITIONS

a. Alcohol - Ethyl (Ethanol) – references to use or possession of alcohol include the use of any beverage, mixture, or preparation containing alcohol.
b. Drug – any substance (other than alcohol), including prescription drugs, which may impair mental or motor function; including, but not limited to, any psychoactive substance, controlled substance, marijuana, or designer or simulated drugs. This definition does not apply to prescription drugs, which have been disclosed to Watertap Inc and the Controlling Employer by the worker and are approved for use within prescription limits.
c. Employee – any individual, salaried, or hourly, who actually performs work for a Controlling Employer on the project premises.
d. Applicant – any individual who is referred or makes application for employment on the project premises.
e. Project Premises – all parts of any office, work site, or other work location, including parking lots under the control of the Owner and/or Watertap Inc.
f. Testing Facilities – a laboratory where a specimen can be tested for drugs and alcohol within threshold limits according to standards established by the U. S. Department of Transportation and is certified by the U. S. Department of Health and Human Services (HHS) under the National Laboratory Certification Program (NLCP) or in the case of a foreign laboratory is approved for participation by the U.S. department of Transportation with respect to Part 40.
g. Contraband – substances/items/materials including but not limited to the following: drugs, alcohol, and drug paraphernalia.
h. Drug Paraphernalia – any article for the use, storage, or sale of drugs.
i. Accident – any event resulting in injury to a person or property to which Watertap Inc believes a worker contributed as a direct or indirect cause.
j. Incident – any event, which Watertap Inc determines, has all the attributes of an accident, except that no harm was caused to personnel or property.
k. Tobacco Products – any article containing tobacco, including but not limited to cigars, cigarettes, pipe tobacco, snuff, and chewing tobacco.
l. Worker(s) – *also Employee*; Any individual, salaried or hourly, who performs work for Watertap Inc, a subcontractor, supplier, or vender on the project premises.

5.0 PROCEDURE

5.1 RIGHT TO SEARCH

a. Watertap Inc reserves the right, upon reasonable cause, to search any personal effects, vehicles, lockers, baggage, lunch boxes, toolboxes, or other suspect item for contraband.
b. An individual who enters the project premises is deemed to consent to this safety procedure. Searches will be conducted on an "as needed" basis as determined after consultation with Watertap Inc corporate management.
c. There will be a worker representative and/or other witnesses, which may include law enforcement officers, to all searches conducted by Watertap Inc.
d. A worker who refuses to submit to a search as described in this policy is subject to disciplinary action, up to and including immediate discharge by the Watertap Inc.

e. A worker on the project premises, facility, or workplace in possession of contraband is subject to disciplinary action, up to and including immediate termination by Watertap Inc.

5.2 DRUG DETECTION THRESHOLD TABLE

	9-Panel Test		Lab Test	
Drug, Drug Group or Drug Metabolites	Initial (Screen) Threshold, ng/mL	Confirmation Threshold, ng/mL	Initial (Screen) Threshold, ng/mL	Confirmation Threshold, ng/mL
Amphetamines	1000	500	500	250
Barbiturates	300	300		
Benzodiazepines	300	200		
Cocaine Metabolites	300	150	150	100
Marijuana Metabolites	50	15	50	15
Methadone	300	200		
Opiates	2000	2000	300	100
Phencyclidine (PCP)	25	25	25	25
Propoxyphene	300	200		

5.3 PRESCRIPTION DRUGS

Any worker using a prescription drug, which may impair mental or motor function, shall, as soon as possible, notify their supervisor. For the safety of all workers, Watertap Inc may not permit the worker on the project premises until released as fit for duty by the prescribing physician. Watertap Inc reserves the right to obtain a confirming medical opinion before allowing the worker to return to duty.

5.4 WORKER TESTING

a. All workers, salaried or hourly, who are hired, transferred, or temporarily assigned to the project premises, shall be required to consent to drug testing prior to assuming project responsibilities.
b. Watertap Inc will test workers when a reasonable suspicion exists that the worker has been using drugs or alcohol.
c. Urine and/or blood drug screening analysis of workers and others on the project premises may be conducted on a random basis at periodic, unannounced intervals during the construction of the project.
d. The maximum level or alcohol blood content shall not exceed 0.08g/100mL blood or equivalent.
e. All drug testing shall, at a minimum, be a 9-panel screen.
f. All drug and alcohol testing shall be administered by a third party. All confirmatory drug testing shall be done in an NLCP certified facility

5.5 POST-ACCIDENT SCREENING

a. After an accident or incident, Watertap Inc may test all those involved.
b. A supervisor must accompany injured worker(s) or those involved in the accident or incident involving a worker to the clinic or medical facility.
c. If the injured worker refuses to give a specimen of body fluid, the supervisor is to notify Watertap Inc management. The worker is to be advised, again, that the refusal to submit to drug screening is a violation of the Substance Abuse Policy and that refusal will result in removal from the project.
d. Results of all drug screenings and analyses must remain strictly confidential.
e. Workers must report all injuries immediately to their supervisor, whether the injury requires medical treatment or First-Aid only.
f. Late reporting may result in denial of a claim.

5.6 DISCIPLINE AND REHABILITATION

a. If the applicant fails the required test, s/he may reapply for employment consideration after a period of no less than sixty (60) calendar days have elapsed. Watertap Inc may waive this sixty-day waiting period if the applicant completes an acceptable drug/alcohol rehabilitation program and presents acceptable proof of completion of the program.
b. An applicant who fails the second test will not be considered for employment at the project premises for a period of no less than one year.
c. All workers who refuse to submit to a drug and alcohol test, or who fail to pass a drug and alcohol test will be removed from the project premises by the Controlling Employer and will be referred to their personnel management for disciplinary action.

5.7 FINANCIAL OBLIGATIONS

a. Watertap Inc will bear the cost of time, transportation, and testing for workers who are being given drug and alcohol tests.

b. Subcontractors, Suppliers, Vendors, etc. will bear the cost of time, transportation, and testing for workers, under their employ, who are being given drug and alcohol tests.

5.8 CONFIDENTIALITY

Watertap Inc will take steps to maintain the confidentiality of information generated by the implementation and enforcement of this policy and these procedures. Disclosure will be made only in appropriate circumstances.

5.9 TRAINING

Supervisors and management personnel will be trained to recognize appropriate symptoms and to administer the policy in a consistent, confidential, and intelligent manner.

5.10 CONTRACTORS AND SUPPLIERS

Watertap Inc will include the provisions of this policy and these procedures, or another acceptable program, in their contracts with contractors, suppliers, consultants, agents, and others involved in providing goods or services on the project premises, and will require that they do the same with respect to their lower-tier contractors, suppliers, etc.

5.11 POSTING AND DISTRIBUTION

a. Significant sections of this policy and these procedures will be given to each applicant and worker upon request.
b. A warning notice will be posted in a conspicuous location on the project premises. This Substance Abuse Policy will be included in each pre-bid and pre-construction meeting as well as an integral part of the Safety and Health Program and contract documents.
c. Watertap Inc may revise and amend this policy and these procedures as required.

Section 2. Health Hazards

Emergency and First-Aid Medical Services

1.0 PURPOSE

The purpose of this section is to provide information and guidelines regarding the First-Aid Program, which handles emergency and non-emergency injuries and/or incidents.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Watertap Inc requires that emergency medical services be available on all project sites.
b. A First-Aid Program will also be maintained at each office and project site.
c. Services to be provided include:
   - Employee access to emergency medical treatment
   - Posted, written instructions, naming the person(s) to be notified in the event of an emergency with phone number(s), along with emergency services numbers, to include the following:
     - Ambulance
     - Fire Department
     - Hospital
     - Police Department
     - Servicing Physician/Emergency Facility/Urgent Care Center

4.0 RESPONSIBILITY

4.1 FIRST-AID/CPR CERTIFIED INDIVIDUAL – DUTIES AND RESPONSIBILITIES

a. Training and certification in First-Aid/CPR and participation in the medical response team is voluntary.
b. First-Aid/CPR certified employees will provide medical services to injured coworkers on a voluntary basis.
c. In the event, medical assistance is not accessible due to time and distance to worksite, First-Aid/CPR certified employees shall be render First-Aid or medical services to injured coworkers.
d. First-Aid/CPR certified employees will be designated at each project site where four or more Watertap Inc employees are permanently assigned.
e. First-Aid/CPR certified employees must be certified by an accrediting training entity (i.e., Red Cross, U.S. Bureau of Mines, Hospital, etc.) and such training must be current.
f. If a First-Aid/CPR certified employee received equivalent training, documentation must be provided.
g. First-Aid/CPR certified employees will complete a certified bloodborne pathogens course.

5.0 PROCEDURE

5.1 EMERGENCY MEDICAL SERVICES

a. An incident when serious injury (i.e., fall, serious laceration, chest pain) occurs shall be considered a Medical Emergency.
b. In case of a Medical Emergency, the following steps shall be followed:
   - Call 9-1-1 (or facility emergency phone number) immediately.
   - Inform them a Construction Accident has occurred. Give them name of injured, address of site.
   - If 9-1-1 operator advises, First-Aid/CPR individual should provide First-Aid to injured.
   - The supervisor/foreman shall meet the ambulance at the site or facility entrance to provide direction to the injured.

5.2 FIRST-AID KITS

a. First-Aid Kit(s) must be in a weatherproof container and all items maintained in a sanitary condition. First-Aid dressings shall be sterile and be contained in individually sealed packages for each item.
b. The contents of the First-Aid Kit(s) shall be inspected at least weekly to ensure replacement of the expended items promptly.
c. First-Aid Kit(s) shall be made readily available and easily accessible.
d. The Safety Representative shall assist in the selection and location(s) or First-Aid kits. Certain jobs may require different type of containers; most containers will be Type II or Type III. At a minimum, the First-Aid kits shall conform to ANSI Z308.1-2015. The class of first aid kit is dependent upon the type of job.
e. If job task requires working with hazardous chemicals or corrosive materials, proper facilities or flushing stations shall be provided for quick drenching or flushing of eyes or body. Facilities or flushing stations shall be located in close proximity to work area. Affected employees will be made aware of location(s).
f. If a worker is in need of additional medical services, the foreman/supervisor/company representative shall escort the worker to the nearest (or designated) health care facility.

First Aid Supply	Minimum Quantity		Minimum Size or Volume	
	Class A Kits	Class B Kits	(US)	(metric)
Adhesive Bandage	16	50	1 x 3 in	2.5 x 7.5 cm
Adhesive Tape	1	2	2.5 yd - total	2.3 m
Antibiotic Application	10	25	1/57 oz	0.5 g
Antiseptic	10	50	1/57 oz	0.5 g
Breathing Barrier (CPR Mask)	1	1		
Burn Dressing (gel soaked)	1	2	4 x 4 in	10 x 10 cm
Burn Treatment	10	25	1/32 oz	0.9 g
Cold Pack	1	2	4 x 5 in	10 x 12.5 cm
Eye Covering w/ means of attachment	2	2	2.9 sq. in.	19 sq. cm
Eye/Skin Wash	1		1 fl. oz	29.6 ml
		1	4 fl. oz	118.3 ml
First Aid Guide	1	1		
Hand Sanitizer[5]	6	10	1/32 oz	0.9 g
Medical Exam Gloves	2 pair	4 pair		
Roller Bandage, 2-inch	1	2	2 in x 4 yd	5 cm x 3.66 m
Roller Bandage, 4-inch	0	1	4 in x 4 yd	10 cm x 3.66 m
Scissors	1	1		
Splint	0	1	4 x 24 in	10.2 x 61 cm
Sterile Pad	2	4	3 x 3 in	7.5 x 7.5 cm
Tourniquet	0	1	1 in (width)	2.5 cm (width)
Trauma Pad	2	4	5 x 9 in	12.7 x 22.9 cm
Triangular Bandage	1	2	40 x 40 x 56 in	101x 101x 142 cm

6.0 BLOODBORNE PATHOGENS POLICY

- The following guideline is established to comply with OSHA 29 CFR 1910.1030, Occupational Exposure to Bloodborne Pathogens.
- A potential for exposure to employees could exist and will be identified by management prior to commencement of work activities.
- Any person designated to administer First-Aid has the potential for exposure to blood or other bodily fluids.
- All employees designated as First-Aid Providers are instructed that it is only at that employee's discretion to choose whether to administer First-Aid in any situation.

6.1 BLOODBORNE PATHOGENS APPLICATION

a. Applies to First-Aid providers who are occupationally exposed to blood or other potentially infectious materials or bodily fluids.
b. An occupational exposure is defined as: reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.
c. Management/Supervision shall identify any/all workers that could have potential exposure and provide the following:
   - Be provided a copy of this policy. Employee may also be provided with a copy of the OSHA 29 CFR 1910.1030 standard upon their request.
   - Have training/information in occupational exposure to bloodborne pathogens.
   - Be offered the Hepatitis B vaccine, at no cost to the employee, at the initial time the employee is involved in an incident where blood or other bodily fluids are present
   - Have training and information on contraindications, adverse reactions and risks associated with the Hepatitis B vaccine.
   - Sign an acceptance or declination form for Hepatitis B vaccine.
   - Have training and information on proper protocol in the event of an exposure.
   - Have PPE available at all times provided at no cost to the employee. This shall include a rescue breathing mask with a one-way valve, disposable latex gloves, standard First-Aid kit and a bloodborne pathogen kit.

6.2 OCCUPATIONAL EXPOSURE

a. In the event of an occupational exposure, the following procedure MUST be adhered to:
   - Flush the exposed area with water for 15 minutes.
   - The Safety Manager or Supervisor shall be notified immediately of the incident and shall:

  - Record the information related to the exposure and the exposed employee.
  - Verify that the employee has been directed to seek medical attention.
  - Notify the appropriate management personnel of the incident
- As with any other on-the-job injury or illness, the supervisor must complete First Report of Injury form promptly and forward it to the Safety Manager or Manager.
- The employee shall be directed to seek immediate medical attention from a licensed physician. Watertap Inc shall supply the physician with the following:
  - Description of the employee's duties as they relate to the exposure incident.
  - The exact nature of the accident, including route of exposure, and the circumstances under which the exposure incident occurred.
  - All medical records relevant to the appropriate treatment of the employees; including vaccination status of the employee.

b. After obtaining the employee's consent, the physician shall obtain appropriate HBV and HIV serologic baseline studies on the exposed employee. Watertap Inc will cover the costs for these tests.
- The employee's personnel file shall be annotated to indicate the name and address of the evaluating physician.
- If the employee has any questions concerning the results and/or treatment, the employee shall be instructed to direct such queries to his/her treating physician.
- All medical records are to be kept confidential.

c. OSHA regulations require that, within 15 days of the completion of the evaluation, Watertap Inc must provide to the employee, a copy of the physician's written opinion. The written opinion shall indicate:
- Whether Hepatitis B vaccine is indicated for the employee and if the employee has received such vaccination.
- That the employee has been informed of the results of the evaluation.
- That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment. Any other findings or diagnoses shall remain confidential and shall not be included in the written report.

6.3 INFORMATION AND TRAINING

a. AIDS is perhaps one of the most devastating diseases known, and employees should be reminded that ALL bodily fluids, including but not limited to the blood, should be handled as though contaminated, and that PPE must be worn at all times when handling any bodily fluids.

b. A copy of 20 CFR 1910.1030 will be made available to the employee.

c. If an employee has a percutaneous (needle stick or cut) or mucous membrane (splash to eye, nasal mucous or mouth) exposure to bodily fluids, the employee shall be informed to IMMEDIATELY take the following steps:
- Bleed the puncture site freely by applying gentle pressure until the bleeding stops. Then wash thoroughly with disinfectant soap and bandage the wound.
- Wash the mucous membrane exposure with copious amounts of water.
- The employee and/or supervisor shall immediately notify the Safety Manager.
- Seek medical attention/treatment.

d. All employees are encouraged to complete an approved "Bloodborne Pathogen Training Course."

6.4 RECORDKEEPING

Watertap Inc will maintain appropriate documents in the employee's medical file. These records, if necessary, shall be maintained for at least the duration of the employment plus 30 yrs.
- A copy of the employee's Hepatitis B vaccination status, including the dates of all Hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as described in the Hepatitis B section of this procedure.
- A copy of medical testing and the healthcare professional's written opinion.
- These documents are to be kept confidential and are not to be disclosed or reported without the employee's expressed written consent to any person within or outside the workplace, except as may be required by law.
- Watertap Inc will maintain, for three years from the date on which the training occurred, a copy of all training records.

7.0 ATTACHMENTS

a. Attachment 10 – First-Aid Kit Inspection Checklist
b. Attachment 11 – Exposure Incident Report
c. Attachment 12 – Bloodborne Pathogen Training Acknowledgement
d. Attachment 13 – Hepatitis B Vaccine Form
e. Attachment 14 – Physician's Opinion

Emergency and First-Aid Medical Services
Exposure Control Plan

1.0 PURPOSE

a. The purpose of an exposure control plan is to eliminate or minimize employee occupational exposure to blood or other infectious materials that may contain bloodborne pathogens.
b. Exposure control plans for employees administering First-Aid can be found in the EMERGENCY AND FIRST-AID MEDICAL SERVICES section of this manual.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees where work involves or may involve direct contact/exposure to contaminated materials, items and/or surfaces except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. In the course of performing work that involves or may involve direct contact/exposure to contaminated materials, items and/or surfaces at hospitals and other medical facilities, employees could be exposed to blood or other infectious materials.
b. This Exposure Control Plan must be utilized when work that involves or may involve direct contact/exposure contaminated materials, items and/or surfaces is performed at hospitals and other medical facilities.
c. A copy of this Exposure Control Plan shall be kept each Watertap Inc office and project site with the First-Aid Program.

4.0 DEFINITIONS

a. Blood – human blood, human blood components and products made from human blood.
b. Bloodborne Pathogen – pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
c. Contaminated – the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
d. Decontamination – the use of physical or chemical means to remove, inactivate or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.
e. Exposure Incident – a specific eye, mouth or other mucous membrane, non-intact skin or parenteral contact with blood or other potentially infection materials that results from the performance of an employee's duties.
f. Hepatitis B – Hepatitis B is the most common serious liver infection in the world. The hepatitis B virus (HBV) that attacked the liver causes it. The virus is transmitted through the blood and bodily fluids that contain blood.
g. Occupational Exposure – reasonably anticipated skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.
h. Parenteral – piercing mucous membranes or the skin barrier though such events as needlesticks, human bits, cuts, and abrasions.
i. Regulated Waste – liquid or semi-liquid blood or other potentially infectious materials:
   - Contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed
   - Items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling
   - Contaminated sharps
   - Pathological and microbiological wastes containing blood or other potentially infectious materials.
j. Sharps – a non-needle sharp or a needle device used for withdrawing body fluids, accessing a vein/artery or administering medications or other fluids. E.g.: syringes, IV needles, etc.
k. Universal Precautions – an approach to infection control. According to the concept of universal precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens.

5.0 RESPONSIBILITY

5.1 RESPONSIBLE MANAGER/SUPERVISOR/FOREMAN

The Responsible Manager/Supervisor/Foreman shall ensure that employees comply with the provisions of this guideline

5.2 EMPLOYEES

Employees shall comply with the provisions of this plan and exercise constant awareness of potential exposure when performing work that involves or may involve direct contact/exposure to contaminated materials, items and/or surfaces in hospitals and other medical facilities. Employees shall have access to the Exposure Control Plan.

5.3 SAFETY REPRESENTATIVE

The Safety Representative shall monitor the use of this guideline to assure compliance and understanding by employees. The Safety Representative shall also provide guidance in implementation of this plan

6.0 PROCEDURE

6.1 OCCUPATIONAL EXPOSURE DETERMINATION

The work of plumbers, pipe fitters, welders, sheet metal workers, helpers, laborers, apprentices, and foreman may, on occasion, involve or may involve direct contact/exposure to contaminated materials, items and/or surfaces at hospitals and other medical facilities. Not all employees of a particular category can reasonably be expected to perform such work. Therefore, the supervisor and safety representative shall make a determination of which employees at their operating company can reasonably be expected to perform work that involves or may involve direct contact/exposure to contaminated materials, items and/or surfaces in hospitals and other medical facilities. The employees identified will be considered as having occupations exposure and therefore should receive exposure control training and be offered the HBV vaccine series.

6.2 UNIVERSAL PRECAUTIONS

All human blood and potentially infectious materials will be considered to be infectious for bloodborne pathogens regardless of the perceived status of the source or individual.

6.3 ENGINEERING CONTROLS AND WORK PRACTICES

Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees. The following engineering and work practice controls will be utilized:

a. Hygiene and Sanitation:
   - After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area IMMEDIATELY or as soon as feasibly possible with soap and water.
   - Where practical, the area and equipment to be services will be cleaned and decontaminated by the facility owner prior to starting work activities.
   - Hand washing facilities will be accessible to employees.
   - The use of hand sanitizing products in addition to hand washing is encouraged.
   - Employees that encounter any waste or other material that they know or expect to contain human blood or other infectious materials should stop work and notify the supervisor or facility owner immediately.
   - The use of disposable coveralls is encouraged to minimize soiling of the clothing.
   - All personal protective equipment will be removed prior to leaving the work area for the end of the shift, day or at break/mealtimes.

b. Tools and Equipment:
   - All tools and equipment used in work that involves or may involve direct contact/exposure to contaminated materials, items and/or surfaces in hospitals and other medical facilities will be disinfected after use. The following procedure will be used:
   - While wearing required personal protective equipment such as safety glasses and latex gloves, tools and equipment will be placed in the same proximity.
   - Disinfect the tools/equipment with either of these two methods:
     - Apply Lysol® or other EPA-registered disinfectant to the tools/equipment. Ensure the disinfectant is applied to all sides of the tool/equipment. OR-
     - Soak the tools/equipment in a 10% (minimum) solution of chlorine bleach for at least 10 minutes.
   - Tools and equipment will not be placed back into boxes, gang-boxes or cases until they have been disinfected.

c. Work Area Restrictions

   In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees shall not eat, drink, apply cosmetics or lip balm, smoke, chew tobacco or handle contact lenses. Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets or on counter tops where blood or other potentially infectious materials are present.

d. Housekeeping

   All work areas and equipment will be maintained in a clean and sanitary condition. Work activities will cease if blood or other potentially infectious materials are identified. Work will not restart until cleaning and decontamination have been completed.

e. Contaminated Laundry or Clothing

   All laundry or clothing contaminated with blood or other potentially infectious materials will be disposed of in a regulated waste container.

6.4 PERSONAL PROTECTIVE EQUIPMENT (PPE)

a. PPE will be provided without cost to employees. PPE will be selected based on the anticipated exposure to blood or other potentially infectious materials.
b. The PPE will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employee's clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use.
c. Protective clothing will be distributed to employees by their immediate supervisor. An adequate supply of PPE will be maintained at the shop/office or at the work location.
d. PPE used in the elimination or minimization of exposure will include but not limited to the following:
   - Impervious gloves
   - Face shields
   - Safety glasses
   - Surgical masks
   - Goggles
   - Aprons
   - Disposable coveralls
e. Employees are expected to utilize PPE in occupational exposure situations.

6.5 HEPATITIS B VACCINE

a. Those employees identified as having occupational exposure due to work that involves or may involve direct contact/exposure to contaminated materials, items and/or surfaces in hospitals and other medical facilities will be offered the Hepatitis B vaccine series. The vaccine will be offered within 10 working days of an employee being identified as having potential for occupational exposure to blood or other potentially infectious materials.
b. The vaccination shall be administered only after the identified employee has had training as outlined in this procedure.
c. All employees who are offered the Hepatitis B vaccine must read and sign a Consent or Rejection form that indicates their choice in regard to receiving the vaccination.
d. Employees who initially decline the vaccine but who later wish to have it may then have the vaccine provided at no cost to the employee.
e. The branch or subsidiary manager or their designee shall ensure that the vaccine is offered, and related paperwork is completed and filed.
f. The Hepatitis B vaccine series will be administered by local clinic or a licensed physician.

6.6 EXPOSURE INCIDENTS

Should an exposure incident occur, the following procedure MUST be followed:

a. Flush the exposed area with water for 15 minutes.
b. The Safety Manager shall be notified immediately of the incident and shall:
   - Record the information related to the exposure incident and the exposed employee.
   - Verify that the employee has been directed to seek medical attention.
   - Notify the appropriate management personnel of the incident.
c. The supervisor of the exposed employee must complete and Exposure Incident Investigation Form and forward it to the Safety Manager.
d. The employee shall be directed to seek immediate medical attention from a licensed physician. The operating company shall supply the physician with the following:
   - A description of the employee's duties as they relate to the exposure incident.
   - The exact nature of the incident, including the route of exposure and the circumstances under which the exposure incident occurred.
   - All medical records relevant to the appropriate treatment of the employee including vaccination status of the employee.
e. After obtaining the employee's consent, the physician shall obtain appropriate HBV and HIV serologic baseline studies on the exposed employee.
f. The employee's personnel file shall be annotated to indicate the name and address of the evaluating physician.
g. If the employee has any questions concerning these results and/or treatment, the employee shall be instructed to direct such questions to their treating physician.
h. All medical records to be kept confidential.

6.7 POST-EXPOSURE EVALUATION AND FOLLOW-UP

All employees who incur and exposure incident will be offered post-exposure evaluation and follow-up in accordance with the OSHA standard. Evaluation and follow-up to include the following:

a. Documentation of the route of exposure and the circumstances related to the incident.
b. Results of testing of exposed employee or source material.
c. The employee will be offered the option of having their blood collected for testing of the employee HBV/HIV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the employee decides prior to that time that testing will or will not be conducted, then the appropriate action can be taken, and the blood sample discarded.
d. The employee will be offered post exposure prophylaxis in accordance with the current recommendations of the U.S. Public Health Service.
e. The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to report any related experiences to appropriate personnel.
f. The following person(s) have been designated to assure that the policy outlined here is effectively carried out as well as to maintain records related to this policy:
   - The Watertap Inc President
   - The Watertap Inc Vice President
   - The Watertap Inc Safety Director

6.8 TRAINING

a. Training for employees identified as having occupational exposure will be conducted prior to initial assignment to tasks where occupational exposure may occur and within 1 year of previous training. Training will be conducted in the following manner:
   - Review OSHA standard for Bloodborne Pathogens.
   - Discuss epidemiology and symptomatology of bloodborne pathogens.
   - Explain modes of transmission of bloodborne pathogens.
   - Review this Exposure Control Plan - points of the plan, lines of responsibility, implementation of the plan, etc.
   - Procedures which might cause exposure to blood or other potentially infectious materials.
   - Control methods that will be used at the facility to control exposure to blood or other potentially infectious materials.
   - Explain PPE that is available at the facility and who should be contacting concerning selection and usage.
   - Review the post-exposure evaluation and follow-up.
   - Explain signs and labels used for infectious materials.
   - HBV vaccination program
b. Training will be documented on a Bloodborne Pathogen Training Form.

6.9 RECORDKEEPING

a. All medical records required by the OSHA Bloodborne Pathogen standard will be managed and maintained by Watertap Inc for the duration of employment, plus 30 years.
b. All training records required by the OSHA Bloodborne Pathogen standard will be managed and maintained by Watertap Inc for no less than 3 years.

7.0 ATTACHMENTS

a. Attachment 11 – Exposure Incident Report
b. Attachment 12 – Bloodborne Pathogen Training Acknowledgement
c. Attachment 13 – Hepatitis B Vaccine Form
d. Attachment 14 – Physician's Opinion

Hazard Communication Program

1.0 PURPOSE

The purpose of this section is to establish the requirements to be followed for providing employees with information concerning the physical and health hazards of materials to which they could be exposed to and how to best protect themselves from potentially harmful effects.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. We all use chemicals of one kind or another at work as well as at home. Some of these chemicals we use can cause physical or health hazards if they are used improperly or carelessly. Some chemical hazards are well known yet many chemical hazards are not common knowledge.

b. While the risk of exposure to hazardous chemicals pervades our society, perhaps the greatest risk is in the workplace. Employees in thousands of workplaces across the nation are unaware of hazardous chemicals to which they are exposed to daily. The federal government has issued the Hazard Communication Standard (HCS), 29 CFR Parts 1910.1200 and 1926.59 in order to reduce the risk of hazardous chemical exposure in the workplace. The HCS requires chemical manufacturers, importers, and distributors to evaluate the dangers of their products and to pass along information about the hazardous chemicals to other employers and employees who may come into contact with the hazardous chemicals.

c. Consistent with the HCS, Watertap Inc has adopted this Hazard Communication Plan ("Plan") as part of our continuing effort to provide our employees with safe working conditions. The purpose of the plan is to inform employees of chemicals known by Watertap Inc to be in their workplaces that may create a hazard if improperly or carelessly used, and to explain safety procedures Watertap Inc has adopted to protect employees against the health and physical risks posed by these chemicals.

4.0 DEFINITIONS

a. Hazardous Chemical – any chemical which creates a physical hazard or health hazard.
   - A chemical is a health hazard if there is statistically significant evidence, based on at least one valid scientific study that acute or chronic health effects may occur in exposed employees.
   - A chemical is a physical hazard if there is scientifically valid evidence that it is a combustible liquid, compressed gas, explosive, flammable, an organic peroxide, an oxidizer, pyrophoric unstable (reactive), or water reactive.

5.0 RESPONSIBILITY

The Safety Director will act as the Plan Administrator. Questions/inquiries regarding the Plan or chemicals at your location should be directed to the Plan Administrator.

6.0 PROCEDURE

6.1 POTENTIALLY HAZARDOUS CHEMICALS

a. A mixture of chemical products, in some cases, may be tested as a whole to determine whether it is a health hazard or a physical hazard. The results of this testing will determine whether the mixture will be considered a hazardous chemical. If the mixture is not tested as a whole, it will be assumed to be a health hazard if any of the component chemicals comprising at least 1% of the mixture is itself a health hazard. If any ingredient accounting for at least 0.1% of the mixture is a carcinogen, then the mixture will be deemed to present a carcinogenic hazard. The employer can use whatever scientifically valid data available to evaluate the physical or health hazard potential of the mixture. Regardless of the method used to determine whether the mixture is a hazardous chemical, any mixture presenting a physical or health hazard will be labeled to or by Watertap Inc as a hazardous chemical and an appropriate SDS will be maintained with the relevant information.

b. Because Watertap Inc is not a chemical manufacturer, importer or distributor, Watertap Inc is not required to assess the hazards or evaluate chemicals. Watertap Inc shall maintain a list of all the chemical products used by our employees, and we shall always evaluate, to the best of our ability, the potential health exposure of a particular chemical product before it is used.

6.2 SAFETY DATA SHEETS (SDS)

a. Watertap Inc does not produce or manufacture chemicals, but some employees use, are exposed to, or are potentially exposed to chemicals Watertap Inc purchases or otherwise obtain for use.

b. For each chemical that is hazardous, Watertap Inc will make available an SDS which includes at least the following section numbers and headings, and associated information under each heading, in the order listed:
   - Section 1. Identification
   - Section 2. Hazard(s) identification
   - Section 3. Composition/information on ingredients

- Section 4. First-aid measures
- Section 5. Fire-fighting measures
- Section 6. Accidental release measures
- Section 7. Handling and storage
- Section 8. Exposure controls/personal protection
- Section 9. Physical and chemical properties
- Section 10. Stability and reactivity
- Section 11. Toxicological information
- Section 12. Ecological information
- Section 13. Disposal considerations
- Section 14. Transport information
- Section 15. Regulatory information
- Section 16. Other information, including data of preparation or last revision

c. Watertap Inc does not prepare SDS's for the chemicals purchased or obtained. The chemical manufactures or suppliers from who Watertap Inc obtains chemicals prepare SDS. While the Plan Administrator is responsible for making sure that the SDS is complete, Watertap Inc relies on the chemical manufacturers and suppliers to provide accurate and updated SDS.

6.3 RESPONSIBILITY FOR SDS

a. The Plan Administrator is responsible for obtaining SDS from the appropriate contractor, supplier or distributor and is responsible for reviewing them to make sure they are complete.
b. The Plan Administrator is responsible for updating the SDS when new and significant health information is provided by the supplier/distributor.
c. The Plan Administrator will telephone manufactures and suppliers to obtain SDS that are not provided by Watertap Inc. A log of such calls will be kept. Telephone calls will be followed by a written request. The Plan Administrator will keep copies of all written requests on file.
d. If within 30 days after making an initial request for an SDS, the Corporate Plan Administrator's attempts to obtain the SDS are unsuccessful, we will enlist the assistance of OSHA to obtain the necessary SDS.

6.4 EMPLOYEE ACCESS TO SDS

Access to SDS will be through electronic copies and/or hard copies.

6.5 MULTIPLE EMPLOYER WORKSITES

SDS for each hazardous material brought on to the worksite by Watertap Inc will be available for review by other contractors and Owner representatives.

6.6 LABELING

a. Containers of hazardous chemicals that are brought onto worksites or used in offices will have labels affixed to them and provide the following:
   - Product identifier
   - Signal word
   - Hazard statement(s)
   - Pictogram(s)
   - Precautionary statement(s)
   - Name, address, and phone number of the chemical manufacturer, importer, or other responsible party.
b. In storage areas where similar chemical products are stored, Watertap Inc will post signage or placards to identify the material and transmit the required information in lieu of individual container labels.
c. Employees are to take care to not deface or remove warning labels from containers of hazardous chemicals. The labels must remain on the containers and remain legible at all times. Employees must promptly notify the Plan Administrator of missing or defaced labels.
d. Employees must not transfer a hazardous chemical from a labeled container to an unlabeled container (pail, bottle, can or the like), unless the unlabeled container will be under the employee's exclusive control during the work shift. The chemical will not be left in the unlabeled container. Employees will not use chemicals they find in unlabeled containers.

6.7 EMERGENCIES

In the event of an emergency (spill, leak, puncture, release, etc.), the Plan Administrator will be contacted immediately. Depending on the contents of the damaged product, the employee(s) should:

- Check the SDS for possible hazards.

- Isolate the hazard by keeping yourself and others clear from damaged product.
- Notify the local fire department, via 9-1-1, if necessary.
- For non-hazardous products, contain the spill of leak to the smallest possible area possible. Begin clean- up and provide warnings to protect other employees.
- Contact the local authorities to make certain that all appropriate disposal criteria have been taken

6.8 NON-ROUTINE TASKS

a. Employees may be required to perform potentially hazardous non-routine tasks. Prior to starting work on such tasks, each affected employee will be given information about hazardous chemicals to which they may be exposed during such activity. This information shall include:
   - Specific chemical hazards.
   - Protective/Safety measures the employee can take.
   - Measures Watertap Inc has taken to lessen the hazards including ventilation, respirators, presence of another employee "watch," and emergency procedures.

b. Examples of non-routine tasks and hazardous chemicals that may be involved:
   - Welding operations - fumes from welding rods
   - Spray painting operations - vapors from spraying
   - Gluing of countertops/tiles - vapors from glue or epoxy

6.9 HAZARDOUS CHEMICAL INVENTORY

a. As part of Watertap Inc's written plan, it is necessary to develop and maintain a list of all hazardous chemicals "known to be present" in the workplace or on the jobsite.
b. Hazardous chemicals will be listed on the inventory in Attachment 26 – List of Hazardous Chemicals
c. The chemical names on the list should correspond with those on the SDS.
d. The inventory will be kept in alphabetical order.
e. If the popular name differs from the chemical name, list the popular name in parentheses next to the chemical name.
f. The hazardous materials inventory will be accessible to all employees. The list will be kept in a binder along with copies of the written Hazard Communication Plan and SDS.
g. The list will be updated once a new hazardous chemical is received at the worksite or when a listed material is no longer present.

6.10 SPILL PREVENTION

a. All hazardous substances shall be properly stored and labeled to minimize the potential for a spill.
b. Secondary containment is required when hazardous substances will be stored in bulk quantities.
c. Spill kits shall be made readily accessible in the event of a spill. In addition, spill kits must be properly stocked for any anticipated spill.
d. Employees shall maintain good housekeeping practices for all hazardous substances.
e. Routine inspections shall be conducted in the hazardous substances storage area(s). The Inspection Form shall be completed during each inspection. Watertap Inc shall keep and maintain the Inspection Log; refer to Attachment 27.
f. Training
   - All employees must be trained on the contents and procedures in spill prevention and reporting.
   - Only persons properly trained on spill prevention shall respond to a spill.
g. All reported spills shall be logged into the Spill Log; refer to Attachment 29

6.11 EMPLOYEE TRAINING REQUIREMENTS

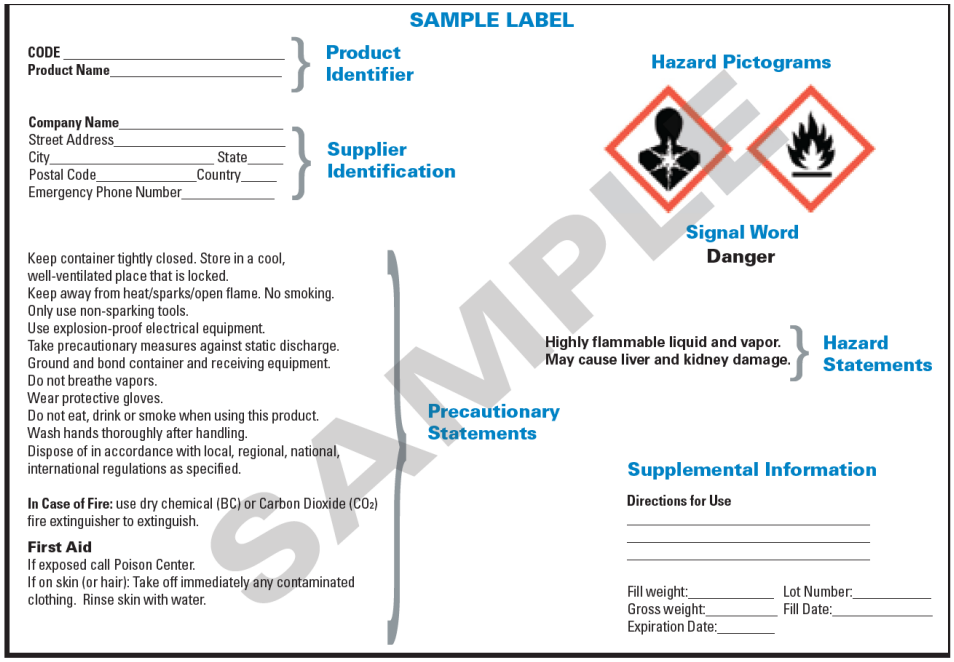
a. OSHA's HCS requires employers to provide a training program for their employees.
b. The standard specifies key items that must be provided to employees during training, including:
   - Informing all employees of all the provisions of the HCS.
   - Informing employees about the types of operations in their work areas where hazardous chemicals are present.
   - Informing employees about the location, contents and the availability for the written Hazard Communication Program, the list(s) for hazardous chemicals and SDS.
   - The employees will be instructed on how to read and interpret the information contained in the SDS and on container labels.
   - Training employees on the methods that can be used to detect the presence or release of toxic/hazardous chemicals in the workplace. They will receive training on the visual appearance or odor of hazardous chemicals that might be released.
   - Employee training on the specific measures they can use to protect themselves from potential hazards such as proper PPE.
   - Training on the procedures to follow in the event of an emergency.
   - Training on guidelines to provide a safe work environment.

c. The standard is "performance orientated," which means the employer has flexibility in designing a program, as long as the employees are instructed on the chemical hazards present in their workplace.
d. Prior to training, a chemical hazard list will be made, the labels checked and the required SDS be obtained and filed. At each new hire, training will take place prior to the new hire commencing their duties. Additional instruction will be provided to any employee whenever that employee becomes routinely exposed to additional hazardous chemicals.
e. Additional instruction will also be provided when conditions arise that may require special precautions. If an updated SDS is received indicating change or additional risk, employee training shall take place.

7.0 ATTACHMENTS

a. Sample Label
b. Pictograms and Hazards
c. Attachment 15 – Hazard Communication: List of Hazardous Chemicals
d. Attachment 16 – Hazard Communication: Inspection Log
e. Attachment 17 – Hazard Communication: Inspection Form
f. Attachment 18 – Hazard Communication: Spill Log

Sample Label



Pictograms and Hazards

Health Hazard	Flame	Exclamation Mark
- Carcinogen - Mutagenicity - Reproductive Toxicity - Respiratory Sensitizer - Target Organ Toxicity - Aspiration Toxicity	- Flammables - Pyrophoric - Self-Heating - Emits Flammable Gas - Self-Reactive - Organic Peroxides	- Irritant (skin and eye) - Skin Sensitizer - Acute Toxicity (harmful) - Narcotic Effects - Respiratory Tract Irritant - Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder	**Corrosion**	**Exploding Bomb**
- Gases Under Pressure	- Skin Corrosion/Burns - Eye Damage - Corrosive to Metals	- Explosives - Self-Reactive - Organic Peroxides
Flame Over Circle	**Environment (Non-Mandatory)**	**Skull and Crossbones**
- Oxidizers	- Aquatic Toxicity	- Acute Toxicity (fatal or toxic)

Asbestos Awareness

WATERTAP INC **DOES NOT PERFORM ASBESTOS ABATEMENT. HOWEVER, DURING NORMAL OPERATIONS, THE PRESENCE OF ASBESTOS AND WORKING WITH/NEAR ACM ARE POSSIBLE.*

1.0 PURPOSE

The purpose of this section is to provide information to reduce the likelihood of being exposed to asbestos.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent project or Owner's requirements.

3.0 GENERAL

a. Usually, asbestos is mixed with other materials to form products. Depending on what the product is, the amount of asbestos in asbestos-containing-materials (ACM) may vary from 1% to 100%. Examples of products that might contain asbestos are:
   - Sprayed on fire proofing and insulation in buildings
   - Insulation for pipes and boilers
   - Wall and ceiling insulation
   - Floor tile
   - Putties, caulks and cements (such as in chemical carrying cement pipes)
   - Wall and ceiling texture in older buildings and homes
   - Cooling tower panels

b. The different types of asbestos are Amosite, Chrysolite, Tremolite, Actinolite, Anthophylite and Crocidolite. Of these six, three are used more commonly. Chrysolite (white) is the most common, but it is not unusual to encounter Amosite (brown/off-white) or Crocidolite (blue) as well.

4.0 DEFINITIONS

Asbestos - the name applied to six naturally occurring minerals that are mined from the earth. Asbestos fibers are also virtually indestructible. They are resistant to chemicals and heat, and they are very stable in the environment. They do not evaporate into the air or dissolve in water, and they are not broken down over time.

5.0 PROCEDURE

5.1 HEALTH EFFECTS OF ASBESTOS

a. The most common way for asbestos fibers to enter the body is through inhalation. In fact, ACM is not generally considered to be harmful unless it is releasing dust or fibers into the air where they can become airborne and be inhaled or ingested. Many of the fibers will become trapped in the mucous membranes of the nose and throat where they can then be removed, but some may pass deep into the lungs, or, if swallowed, into the digestive tract. Once they are trapped in the body, the fibers can cause serious health problems.

b. Asbestos is most hazardous with it is friable. The term friable means that the asbestos is easily crumbled by hand, releasing fibers into the air. Sprayed on asbestos insulation is highly friable. Asbestos floor tile is not.

c. Because it is so hard to destroy asbestos fibers, the body cannot break them down or remove them once they are lodged in lung or body tissues. They remain in place where they can cause disease. There are three primary diseases associated with asbestos exposure: Asbestosis, lung cancer, and Mesothelioma.

5.2 AVOID ASBESTOS EXPOSURE

a. To avoid being exposed to asbestos, employees must be aware of the locations it is likely to be found. If an employee does not know whether something is asbestos or not, assume that it is until it is verified otherwise. Remember, it cannot be known if floor tiles or insulation contain asbestos just by looking at them. If there is a reason to suspect something is asbestos or ACM, either because it is labeled as such or because it is something that is likely to contain asbestos (9"x9" floor tile for example) - DO NOT DISTURB IT.

b. Never do the following to any ACM or suspected materials:
   - Drill
   - Hammer
   - Cut
   - Saw
   - Break
   - Damage
   - Move
   - Disturb

c. When working on a project with multiple contractors, Watertap Inc shall ensure controls are in place to protect employees and contractors from asbestos exposure.

5.3 Asbestos Reporting

If anyone discovers or accidentally damages/disturbs suspected ACM, they should be instructed to:

- Leave the area immediately and report the situation to the supervisor.
- Post signs and control access to the area.
- The supervisor must report the damage to the facility or project safety personnel.
- ACM can be removed/abated by properly trained authorized personnel only.

5.4 Asbestos Awareness Training

a. All Watertap Inc employees who have the potential to be exposed to asbestos will receive asbestos awareness training. The training will include a review of this document.
b. Refresher training will be completed annually.
c. Retraining will be conducted for any employee observed not following the proper procedures and/or precautions.

Lead

1.0 PURPOSE

The purpose of this section is to provide information regarding general lead safety requirements.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Watertap Inc does not perform lead abatement.
b. Employees shall not be exposed to a PEL of 50 (fifty) micrograms per cubic meter of air. A written program shall be developed and implemented to reduce the exposures to or below the permissible limits.

4.0 PROCEDURE

3.1 LEAD PAINTED COMPONENTS

a. Lead based paint can possibly be identified on numerous surfaces throughout facilities. In keeping with the requirements of the Occupational Safety & Health Administration's (OSHA's) Lead Exposure in the Construction Industry Standard (29 CFR 1926.62), every painted surface shall be considered a potential lead hazard.
b. A potential source of lead emission is the disturbing of painted surfaces or structures and components within these facilities. Typical activities that would significantly disturb a painted surface include the following:
   - Removal of all or part of the paint by hand or power tools
   - Removal of all or part of the paint by blast cleaning
   - Removal of all or part of the paint by other means such as the use of chemical strippers or a heat gun
   - Structural work to the surface such as welding, burning, cutting, or drilling
   - Manual demolition of buildings, portions of buildings, or the building components.
c. The primary consideration when specifying work methods shall be the requirement to protect workers from exposure to lead above the Permissible Exposure Limit (PEL). Further considerations when specifying work methods shall be the effort to reduce the release of lead into the air, water, and soil, and to reduce to a minimum the generation of debris.
d. Employees shall abide by warning signs and assessment reports.
e. Employees shall not disturb the lead containing materials.

3.2 AIR MONITORING

a. Initial air monitoring shall be conducted prior the beginning of work. If initial air monitoring is above the action level, monitoring shall be conducted every six (6) months until two consecutive results are below the action level.
b. All air monitoring conducted by the site competent person for lead or other qualified representative shall be performed in accordance with the OSHA Standard.
c. Detailed and accurate records of all monitoring and other relevant data used in conducting employee exposure assessments shall be kept and maintained in accordance with the OSHA Standard.
d. Employees shall be notified, in writing, of the air monitoring results and any corrective actions taken.

3.3 SIGNAGE, NOTIFICATION, AND WORKER PROTECTION

a. Signs shall be posted in each work area where work on painted surfaces disturbs the paint in such a way so as to expose personnel to lead contaminated dust, debris, or lead fumes. At minimum they shall read:
   - WARNING: LEAD WORK AREA
   - POISON: NO SMOKING OR EATING
b. All worker protection requirements will, at minimum, meet the current OSHA Standard. These requirements include but are not limited to:
   - Signage, Barriers & Access
   - Exposure Monitoring
   - Respiratory Protection
   - Medical Surveillance & Records
   - Education & Training
   - Decontamination & Clearance

3.4 HANDLING AND DISPOSAL

a. All work involving lead removal or re-coating shall be conducted in a manner that minimizes the release of lead and lead containing materials into the air, water, and soil.

b. All lead containing hazardous wastes that are generated shall be contained, collected, segregated, labeled, and held at a location designated or approved by the client or owner, pending the appropriate disposition.
c. Contractor shall provide for proper disposal of waste, including EPA identification number, notification, certification, manifest, etc.
d. All waste containers must be leak proof and capable of being securely covered.
e. All waste containers shall be clearly labeled with weather resistant labels using indelible ink to identify the type of waste they contain.

3.5 PERSONAL PROTECTIVE EQUIPMENT

a. All employees shall be provided necessary and appropriate PPE at no cost.
b. Respirators shall be used during the installation/implementation of engineering and work practice controls.

3.7 MEDICAL/HYGIENE

a. Medical surveillance shall be implemented in the event employees have been or have the potential to be exposed above the action level for more than 30 days.
b. Blood sampling and monitoring shall occur in the event employees have been or have the potential to be exposed to lead containing materials.
c. Employees shall wash their hands and face if lead materials are contacted. Changing, shower and hygiene facilities shall be provided when exposure to lead is above the PEL.
d. The key health effects of lead are listed below:

- Peripheral Neuropathy
- Fatigue/Irritability
- Impaired Concentration
- Hearing Loss
- Wrist/Foot Drop
- Seizures
- Encephalopathy
- Nausea
- Dyspepsia
- Constipation
- Anemia
- Hypertension

3.8 TRAINING

a. All employees shall be trained in lead awareness prior to the commencement of work on any tasks in which the potential for the exposure of lead exists.
b. All employees are required to receive annual refresher training.
c. All training shall be properly documented and maintained by Watertap Inc.

Silica Exposure Control Plan

1.0 PURPOSE

The purpose of this section is to establish the requirements to protect the health and safety of Watertap Inc employees who must perform tasks involving silica exposure and establish methods to be used to protect employees.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees who are expected to perform tasks involving, or be exposed to, respirable crystalline silica.

3.0 POLICY

a. Watertap Inc prohibits any tasks involving silica exposure to be performed without reviewing the Silica Exposure Control Plan.

4.0 GENERAL

a. Silica is the second most common mineral on earth, found in the common form as “sand” and “rock”. Silica is the compound formed from the elements silicon (Si) and oxygen (O) and has a molecular form of SiO2. The three main forms or ‘polymorphs’ of silica are alpha quartz, cristobalite and tridymite. The polymer most abundant and most hazardous to human health is alpha quartz and is commonly referred to as crystalline silica.
b. The health hazards of silica come from breathing in the dust. If crystalline silica becomes airborne through industrial activities, exposures to fine crystalline silica dust (specifically exposure to the size fraction that is considered to be respirable) can lead to a disabling, sometimes fatal disease called silicosis. The fine particles are deposited in the lungs, causing thickening, and scarring of the lung tissue. The scar tissue restricts the lungs’ ability to extract oxygen from the air. This damage is permanent, but the symptoms of the diseases may not appear for many years.
c. A worker may develop any of three types of silicosis, depending on the concentration of silica dust and the duration of the exposure:
   - Chronic Silicosis: Develops after 10 or more years of exposure to crystalline silica and relatively low concentrations
   - Accelerated Silicosis: Develops 5 to 10 years after initial exposure to crystalline silica at high concentrations
   - Acute Silicosis: Develops within weeks, or 4 to 5 years, after exposure to very high concentrations of crystalline silica
d. Initially, workers with silicosis may have no symptoms; however, as the disease progresses, workers may experience:
   - Shortness of Breath
   - Severe Cough
   - Weakness
e. These symptoms can worsen over time and lead to death. Exposure to silica has also been linked to other diseases, including bronchitis, tuberculosis, and lung cancer.

5.0 RESPONSIBILITY

5.1 SAFETY DIRECTOR

The Safety Director shall ensure supervisor(s) understand their responsibilities for the implementation of the Silica Exposure Control Plan. The Safety Director shall review and update the plan annually.

5.2 SUPERVISORS

Supervisors shall review the Silica Exposure Control Plan with all employees and ensure a copy of the plan is kept on each jobsite. Supervisors shall implement and ensure procedures are followed in accordance with the plan.

5.3 EMPLOYEES

Employees shall comply with the Silica Exposure Control Plan and any additional safety recommendations provided by the Safety Director and/or supervisors. Employees shall contact supervisors if equipment becomes defective, or alternate methods need to be taken.

6.0 SPECIFIC CONTROL METHODS

For each employee working with materials containing crystalline silica and performing tasks using the equipment and machines as listed below.

6.1 HANDHELD POWER SAWS

Task(s): Cutting concrete blocks and pipes
Engineering Control(s): Integrated water delivery system, continuously fed to blade
Work Practices: Operate and maintain tool in accordance with manufacturer’s instructions to minimize dust emissions.
Respiratory Protection (Outdoors, less than 4 hours per shift): None needed
Respiratory Protection (Outdoors, more than 4 hours per shift): APF 10 Dust Mask
Respiratory Protection (Indoors or Enclosed Area): APF 10 Dust Mask

6.2 WALK-BEHIND SAW

Task(s): Cutting concrete slab
Engineering Control(s): Integrated water delivery system, continuously fed to blade
Work Practices: Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.
Respiratory Protection (Outdoors): None needed
Respiratory Protection (Indoors or Enclosed): APF 10 Dust Mask

6.3 HANDHELD DRILLS

Task(s): Drill holes in concrete
Engineering Control(s): Drill equipped with shroud or cowling with dust collection system.
Work Practices: Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide, at a minimum, the air flow recommended by the tool manufacturer, and have a filter with at least 99% efficiency and a filter cleaning mechanism. Use a HEPA-filtered vacuum when cleaning holes.
Respiratory Protection: None needed

6.4 JACKHAMMERS AND HANDHELD POWERED CHIPPING TOOLS

Task(s): Demolition, Cleaning/Finishing wall(s)
Engineering Control(s): Continuous stream or spray of water at point of impact, or tool equipped with shroud and dust collection system.
Work Practices: Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. Dust collector must provide, at a minimum, the air flow recommended by the tool manufacturer, and have a filter with at least 99% efficiency and a filter cleaning mechanism.
Respiratory Protection (Outdoors, less than 4 hours per shift): None needed
Respiratory Protection (Outdoors, more than 4 hours per shift): APF 10 Dust Mask
Respiratory Protection (Indoors or Enclosed Area): APF 10 Dust Mask

6.5 HANDHELD GRINDERS

Task(s): Finish wall(s)
Engineering Control(s): When performing tasks outdoors only, use grinder equipped with integrated water delivery system, continuously fed to blade. When performing tasks indoors or outdoors, use grinder equipped with shroud and dust collection system.
Work Practices: Operate and maintain tool in accordance with manufacturer's instruction to minimize dust emissions. Dust collector must provide, at a minimum, 25 cubic feet per minute (CFM) of air flow per inch of wheel diameter and have a filter with at least 99% efficiency and a cyclonic pre-separator or filter cleaning mechanism.
Respiratory Protection (Outdoors): None needed
Respiratory Protection (Indoors or Enclosed Area, less than 4 hours per shift): None needed
Respiratory Protection (Indoors or Enclosed Area, more than 4 hours per shift): APF 10 Dust Mask

6.6 HEAVY EQUIPMENT

Task(s): Demolition
Engineering Control(s): Operate equipment from within an enclosed cab
Work Practices: When employees outside of the cab are engaged in the task, apply water and/or dust suppressants as necessary to minimize dust emissions.
Respiratory Protection: None needed

6.7 HOUSEKEEPING

While cleaning surfaces and/or equipment, dust containing silica shall be cleaned up using wet methods or HEPA equipped vacuum. Dry sweeping and use of compressed air are not allowed for removing dust and debris containing silica. Used vacuum bags shall be disposed of in a closed sealed container

6.8 RESTRICTED ACCESS

When necessary, access to work areas shall be restricted by means of signage, barricades, enclosures, or spotters.

Back/Lifting Safety

1.0 PURPOSE

The purpose of this section is to provide information that will help prevent back injuries related to lifting and material handling.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent project or Owner's requirements.

3.0 PROCEDURE

3.1 AVOID LIFTING AND BENDING SIMULTANEOUSLY

Avoid lifting and bending whenever you can by following these steps

- Whenever possible, avoid back stress and the strain of lifting and bending. If the back is not used like a lever, potentially damaging forces are avoided.
- Place objects off the floor. If an object can be placed on a table or other elevated surface, is it placed so you will not have to reach down to pick it up again?
- Raise/lower shelves. The best zone for lifting is between the shoulders and the waist. Put heavier objects on shelves at waist level, lighter objects on lower or higher shelves.
- Use carts and dollies to move objects instead of carrying them. Remember, it is better on the back to push carts that it is to pull them.
- Use cranes, hoists, lift tables, and other lift assist devices when possible.

3.2 PROPER LIFTING

Lifting cannot always be avoided but there are ways to reduce the amount of pressure placed on the back when lifting an object. By bending the knees, keep the spine in a better alignment, and essentially remove the lever principle forces. Instead of using the back like a crane, allow the legs to do the work. Follow these steps when lifting:

- Take a balanced stance with feet shoulder width apart. One foot can be behind the object and the other next to it.
- Squat down to lift the object but keep heels off the floor. Get as close to the object as possible.
- Use palms (not just fingers) for a secure grip on the load. Make sure to hold on to the object without switching grip.
- Lift gradually (without jerking) using legs, abdominal and buttock muscles. Keep the load as close to the body as possible. Keep chin tucked in to keep a relatively straight back and neckline.
- Once standing, change directions by pointing feet in the direction of intended travel and turn whole body. Avoid twisting at the waist while carrying a load.

3.3 BODY MANAGEMENT

It is important to know the body's limitations and to be aware of body position at all times. Learn to recognize situations where the back is at the most risk: bending, lifting, reaching, twisting, etc. Take measures to reduce the likelihood of an injury.

- Stretch first – If the work might place the back at risk, take the time to stretch muscles before starting, just like a professional athlete would do before a workout. This will help avoid painful strains and sprains.
- Slow down – If doing a lot of heavy, repetitive lifting, take it slowly if possible. Allow recovery time between lifts.
- Rest back – Take frequent, short breaks. Stretch. If having ever worked in an awkward position for a long time, then stood up and felt stiff and sore, that position has been sustained too long and the body is protesting. Take one-minute stretch breaks frequently to help avoid sore muscles.
- Sleep on a firm mattress – Also, the best sleeping position for many people is either on the back with the knees slightly elevated or on the side with knees slightly bent.
- Get in shape – strengthen the core (stomach muscles), lose a little weight, increase flexibility.

Fitness for duty

1.0 PURPOSE

The purpose of this section is to provide procedures to ensure employees are fit to perform their jobs and tasks safely.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. In addition to alcohol and drugs, injuries, other medical and psychological conditions can limit an employee's ability to safely perform their work.
b. An employee's inability to perform their work safely puts the health and safety of the employee, themselves, as well as co-workers and other trades at risk.
c. Alcohol, drugs, and medications, and their testing procedures, are addressed within the SUBSTANCE ABUSE POLICY.
d. Fitness for Duty testing is permitted and classified by three categories: Pre-Placement, Return to Work, and Discretionary.
e. Fitness for Duty testing is completed to ensure employees are able to perform meaningful and productive work in any capacity.
f. Results are for informational purposes to determine if an employee is physically and/or psychologically capable of performing their job or certain tasks safely.
g. If a disability is present, testing establishes precautions and/or accommodations needed to perform job safely.
h. Refusal to submit to testing has no negative affect on an employee's overall employment but employee may not be permitted to return to a specific project or assignment until Fitness for Duty testing is completed.

4.0 DEFINITIONS

a. Employee – any individual, salaried, or hourly, who actually performs work for a Controlling Employer on the project premises.
b. Controlling Employer – an individual or firm that provides workers to perform work on the project premises and is responsible for their hiring, advancement, payment, discipline, and termination, including the Owner, the architect, Guardian Plumbing & Heating, Inc, all contractors, all sub-tier contractors, all vendors, all suppliers, all material dealers, any other contractors, and any others coming on the project premises.
c. Accident – an event resulting in injury to a person or property to which Guardian Plumbing & Heating, Inc believes a worker contributed as a direct or indirect cause.

5.0 RESPONSIBILITIES

5.1 SAFETY DIRECTOR/SITE SAFETY REPRESENTATIVE

The Safety Director/Site Safety Representative shall monitor the use of this guideline to assure compliance and understanding by employees.

5.2 SUPERVISORS

Supervisors shall ensure that employees under their direction are following safe work practices as outlined in this guideline and actively monitor employees' activities and behaviors to determine if employees should be removed from the work site.

5.3 EMPLOYEES

Employees shall agree to adhere to the policies outlined in this guideline. Employees are responsible for notifying supervisor(s) if they are not able to perform their jobs safely. This includes, but is not limited to, injuries, fatigue, mental or personal problems, alcohol, drugs, and medication.

6.0 FITNESS FOR DUTY TESTING

6.1 PRE-PLACEMENT TESTING

When an employee is to be placed or assigned to a project where certain tasks may be more physically demanding than previous work assignments.

6.2 RETURN TO WORK TESTING

a. When an employee returns to work after an accident-related injury, medical leave, or leave of absence
b. If an employee is fully medically released by their physician but results are unclear or employee does not pass, the employee may be temporarily reassigned to a Light Duty position.
c. Employees medically released by their physician for Light Duty, or employees reassigned to Light Duty, will need to complete Fitness for Duty testing before resuming previous job assignments.

6.3 DISCRETIONARY TESTING

a. Fitness for Duty testing will be completed when there is reasonable suspicion that an employee has a medical condition which inhibits their ability to perform work safely.

b. Fitness for Duty testing will be completed when an employee's unsafe behavior or conduct imposes a risk to themselves or others, and it is determined they should be from a project site.
c. Fitness for Duty testing is recommended, or will be requested, when an employee self-discloses a medical or psychological condition which inhibits their ability to perform work safely.

6.4 RECORDS

a. All Fitness for Duty results will be kept confidential.
b. All records must be kept with employee's file for the duration of employment.

Section 3. Equipment/Task Safety

Compressed Gas Cylinders

1.0 PURPOSE

The purpose of this section is to establish the requirements to be followed to protect personnel and equipment during the receiving, handling, storage, transportation, and operation of compressed gas cylinders.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent project or Owner's requirements.

3.0 GENERAL

a. Compressed gas cylinders can present a variety of hazards if proper procedures are not developed and followed.
b. These cylinders typically have a number of uses including welding gas, breathing air, and purging gases for instrumentation.
c. High pressures and toxic gas can present serious health and safety risks. The following shall address these hazards and provide precautions to be taken.

4.0 DEFINITIONS

a. Compressed Gas Cylinder – a pressure tested metal container constructed and maintained in accordance with the U.S. Department of Transportation requirements (49 CFR Parts 171-179). These containers are available in various sizes.
b. Cylinder Cap – a threaded metal cover that protects the valve and connection area of a compressed gas cylinder.
c. Cylinder Dolly – a hand truck designed to carry standard industrial-size compressed gas cylinders. This hand truck is wheeled and has a chain or similar mechanism for securing the cylinder during transportation within the facility or project.
d. Fire Watch – a person who is assigned to prepare an area for "hot work." The fire watch is responsible for assuring the presence of adequate fire extinguishing equipment for the proposed work, observing the work to ensure continuing fire prevention precautions are verifying that all sources of ignition are shut down and/or cooled off before leaving the area.
e. Flashback Arrestor – the valve or mechanism used on fuel and oxygen lines to prevent the mixing of these gasses.
f. Valve Assembly – consists of a valve and connections used to access the compressed gas in a cylinder.

5.0 PROCEDURE

5.1 ACCEPTING COMPRESSED GAS CYLINDERS FROM VENDORS

When accepting compressed gas cylinders from vendors, the following precautions shall be adhered to:

- Do not accept cylinders that are not permanently and clearly marked by content. The name of the gas must be clearly marked on the shoulder of the cylinder.
- Ensure a Safety Data Sheet (SDS) accompanies all cylinders.
- Confirm the current SDS is on hand.
- Check the cylinder for integrity. The cylinder shall show no evidence of damage or defects such as gouges, grooves, dents, burrs and/or corrosion. It shall have a properly fitted threaded valve protection cap and the current hyrdotest date shall be stamped on the cylinder collar.
- Confirm the cylinder has been ordered. Do not accept cylinders that have not been ordered by the location.
- Do not accept cylinders that lack a valve cover properly fitted on the valve.

5.2 STORAGE OF COMPRESSED GAS CYLINDERS

Cylinders shall be stored in the upright position with the threaded cylinder cap in place and secured with chains or placed in racks to prevent falling. Storage areas for compressed gas cylinders shall be properly labeled by the contents and the cylinders shall be grouped accordingly.

5.3 EMPTY CYLINDERS

The valves of empty cylinders shall be closed with the cylinder cap secured and shall be marked or tagged "EMPTY." If stored in the same area, empty cylinders shall be separated from full cylinders.

5.4 FIRE PREVENTION STORAGE REQUIREMENTS

a. Flammable (fuel) gases include acetylene, hydrogen, natural gas, and LP gas. Toxic gases include chlorine and other gases not used as fuel. Other gases may also be flammable. Check with the safety representative regarding the flammability of a cylinder gas. Fuel gas cylinder storage inside a building must be limited to a total capacity of 2,000 standard cubic feet. Some precautions to be observed when storing cylinders include
   - Oxygen cylinders shall not be stored with flammable gases. Oxygen cylinders are reverse threaded.
   - Nitrogen and carbon dioxide cylinders may be stored with fuel or oxygen cylinders as these are inert gases and do not feed a fire.

- Remove damaged or leaking cylinders from enclosed areas. Tag cylinders as “DAMAGED” or “DEFECTIVE” and notify the vendor to arrange for return as soon as possible.
- “No Smoking” signs shall be posted in flammable (fuel) gas storage areas.

b. Separation of flammable, toxic and oxidizer gases must be maintained. The same separation must be maintained between the cylinders and flammable or combustible materials such as paper, wood and/or grease. Separation can be accomplished by taking the following steps:
- Maintain a minimum distance of 20 feet between the types of gases.
- Install a firewall 5 feet high with a 90-minute fire rating.

5.5 Moving and Transporting Compressed Gas Cylinders

The following procedures shall be observed when moving or transporting compressed gas cylinders:

a. Do not move or lift cylinders by the cap.
b. For local transport, use cradles, lugs, platforms, hand trucks or similar devices that allow the cylinder to be secured to the wheeled device.
c. When transporting by a powered vehicle, secure the cylinder in a vertical (upright) position.
d. To reposition a cylinder, lift slightly with the threaded cap in place and roll on the bottom edge.

5.6 Putting Cylinders into Service

Only employees trained in the safe use of compressed gas cylinders shall be permitted to use the cylinders. Accessory equipment including regulators, gauges, hoses, and other equipment must be selected for compatibility with the gas being used. Precautions should be used when using these cylinders:

- Oxygen equipment is reverse threaded and may not be used with other gases.
- Equipment shall be examined and inspected for damage or wear prior to use. Damaged or worn equipment shall be removed from service, tagged, and returned to the warehouse or vendor for repair or replacement.
- Oil or grease shall not be used on regulators, fittings, hoses, or gauges.
- Use check valves when any potential for backflow of gases into the cylinder exists.
- Because of potentially high pressures, open valves slowly on cylinders of compressed gas.
- Use a suitable cylinder truck, chain, or other securing device to prevent cylinders from being knocked over while in use of in standby service.

6.0 References

a. ANSI B57.1, Compressed Gas Cylinder Valve Outlet and Inlet Connections.
b. NFPA Fire Protection Handbook.
c. Compressed Gas Association, Standard for Visual Inspection of Compressed Gas Cylinders, C-6.
d. 29 CFR 1910, Subpart H, Hazardous Materials.
e. 29 CFR 1910, Subpart L, Fire Protection.
f. 20 CFR 1910, Subpart M, Compressed Gas and Compressed Air Equipment.
g. 49 CFR, Parts 171-179

Confined Space Entry

1.0 PURPOSE

a. The purpose of this section is to define safe conditions for working in confined space and to establish proper safety precautions to be taken when working in confined spaces.
b. This section is designed to prevent personal injuries and illnesses and to meet the requirements of 29 CFR 1926.1200.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent project or Owner's requirements.

3.0 DEFINITIONS

a. Confined Space – a space that is large enough for a human to enter, has restricted mean of entry and exit and is not designed for continuous human occupancy. Examples: tanks, excavations, pits, process equipment, etc.
b. Permit Required Confined Space – a confined space that has one or more of the following characteristics:
   - Contains or has the potential to contain a hazardous atmosphere.
   - Contains an oxygen deficient atmosphere.
   - Contains a material that has the potential for engulfing an entrant.
   - Has an internal configuration such that the entrant could be trapped or asphyxiated by inwardly converging wall or a floor, which slopes downward or tapers to a small cross section.
   - Contains any other recognized serious safety or health hazard.
c. Entry – occurs when any part of the body breaks the plane of the confined space opening in order to perform work activities.

4.0 RESPONSIBILITY

4.1 ENTRY SUPERVISOR

The Entry Supervisor is responsible for determining if acceptable entry conditions are present, authorize entry into the confined space, oversee entry operations and terminate/closeout entry as required by conditions or program requirements.

4.2 ATTENDANT

The Attendant is responsible for knowing the hazards that may be faced during an entry. He/She is to be aware of possible effects of hazard exposure in authorized entrants. Maintain an accurate record of those entering and exiting the confined space. Remain outside the confined space during entry operations. Alert entrant as needed of conditions outside the confined space. Monitor activities inside and outside the confined space. Summon rescue/emergency personnel if needed and prevent unauthorized persons from entering the confined space. The Attendant is responsible for only one confined space entry at a time.

4.3 SAFETY DIRECTOR

The Safety Director is responsible for reviewing the Confined Space Program annually and updating as needed. Conduct periodic inspections of entry operations to ensure compliance. Assist in all aspects of this program as required and conduct a single annual review of all entries performed by Watertap Inc employees.

4.4 SUPERVISOR

The Supervisor is responsible for performing the duties of entry supervisor as needed and ensuring that employees under their supervision follow the provisions of this program.

5.0 PROCEDURES

5.1 IDENTIFYING ALL CONFINED SPACE

All confined spaces located within a project, facility or under the facility's/project's control shall be identified. Once identified, a determination will be made as to whether a permit will be required for entry. All employees will be made aware of these confined spaces though training, instruction, and signage.

5.2 PREVENTING UNAUTHORIZED ENTRY

All employees shall be instructed that entry into a confined space is prohibited without a permit. All entrants authorized for entry will be documented on the permit.

5.3 PERMIT SYSTEM

When a confined space must be entered, a permit shall be completed and authorized by a supervisor, customer representative or safety representative prior to entry. The permit should consist of the following:
- The permit shall contain the date, the location of the confined space and the signature of the person authorizing entry
- A permit shall not be authorized until all conditions of the permit have been satisfied.
- Permits will be cancelled in the event of a fire, vapor release, spill or by the direction of customer representative. A new permit must then be issued before work can continue/resume.

5.4 PLANNING THE ENTRY

a. Gathering Data
- Identify the confined space and its location.
- Give reason for entering the confined space.
- Identify contents of the confined space.
- Data is to be readily available for review by entrants, entry supervisors, attendants, etc.

b. Identifying the Hazards
- Determine the oxygen content of the space.
- Determine flammable gas (if any) content.
- Determine the presence of toxic substances.
- Determine the physical and mechanical hazards.

c. Ventilation of the Confined Space
- Determine whether mechanical or natural ventilation will be required.
- Mechanical ventilators must be bonded to the space.

d. Isolating the Confined Space
- Determine the procedures for disconnecting equipment, blinding and energy isolation.
- All energy sources should be isolated.

e. Purging/Cleaning the Confined Space
- Determine if the confined space will be purged with an inert gas.
- Determine the type of cleaning methods to be used.

f. Placement of Warning Signs
- Determine where warning signs and barriers will be required to prevent unauthorized entry or to protect entrants from external hazards.

g. Identifying All Personnel
- List all employees that will be required to prepare the confined space and complete the work inside of the space.

h. Identifying Necessary Equipment
- List all equipment that will be needed to complete the confined space entry and involved work.

i. Preparing the Confined Space for Entry
- Warning signs and barriers should be placed on or around the confined space
- Place all tools and equipment near the confined space.
- Isolate all energy sources connected to the confined space using proper lockout/tagout procedures.
- Install ventilation equipment, if required. Install the ventilation equipment so that air is pulled through the entire space.
- Before starting mechanical ventilation equipment, a test of the atmosphere in the space must be completed. The instrument used must be able to determine oxygen content, flammable gas concentration and toxic gases likely to be present in the space.
  - Oxygen content in the space must be between 19.5% and 23.5%
  - The LEL or flammable gas reading must be less than 10%
  - If a toxic atmosphere exists, entry will not be permitted until levels are below the PEL for the toxic substance present.
- Atmospheric testing shall continue until work is completed inside of the space. The entry supervisor shall record results on the permit.
- All employees involved shall be assembled at the space and permit requirements and emergency procedures are to be reviewed.
- All employees are entitled to request additional monitoring at any time.
- Entrants shall be allowed to witness atmospheric testing of confined spaces if they desire to do so.
- The entry supervisor will then add any additional information, then complete and sign the permit.

j. Rescue Procedures
- In the event of an emergency, immediately notify rescue personnel or the local fire department.
- Assist rescue personnel as required.
- Never enter a confined space to rescue an entrant.
- In the event immediately dangerous to life and health (IDLH) conditions exist, on-site rescues services will be provided by Watertap Inc or host facility while work is being performed.

k. Communication
- A means of oral communication shall be continuously maintained between the entrant(s) and the standby.
- Radios can be used to meet this requirement.
- The confined space attendant will be equipped with an air horn and orange or red vest for emergency communication.

l. Entry by Multiple Companies
- A pre-entry meeting between supervisors of all companies entering the confined space must be conducted.
- The meeting will be conducted to determine precautions to be taken so that entrants do not endanger one another.
- Watertap Inc employees may not enter the space until meeting has been conducted.

m. Entry into Owner's Confined Spaces
- The Owner's entry procedures will be followed as required by the Owner.
- Watertap Inc employees concerned that the Owner's procedures are not sufficient may refuse to enter until the Watertap Inc Safety Director has made a determination that the customer procedures will adequately protect employees involved in entry operations.

5.5 CLOSING OUT PERMIT

a. Upon completion of entry work, the permit must be voided/cancelled, entry into the space closed, or barricaded, and signed, "DO NOT ENTER".
b. All cancelled permits shall be kept on record and managed and maintained by Watertap Inc.

5.6 TRAINING

a. All employees whose job function may require them to be involved in confined space entry operations shall be trained prior to their initial assignment and/or prior to a change in assigned duties, if a new hazard has been created, or if special deviations have occurred.
b. Training will include, but not limited to the following:
- An explanation of the OSHA standard 1926.1200.
- Signs and barriers.
- The hazards of confined spaces.
- The Watertap Inc Confined Space Program

c. All training shall be documented. Training records shall be managed and maintained by Watertap Inc.

5.7 OUTSIDE SERVICES

a. There are companies that specialize in confined space entry programs and provide all pertinent training and equipment. These services will be used, and in charge of rescue whenever large-scale programs, long period of exposures and/or high hazards exist.
b. The outside service will review the confined space prior to the start of work. The outside service will perform a practice rescue prior to the start of work. The outside service has a right to decline the work if deemed to hazardous or lacking appropriate equipment or personnel.
c. If another company's program is to be adopted and utilized, a copy of their written program should be submitted to the Safety Director for review and approval prior to use.

6.0 REFERENCE

29 CFR 1926.1200

7.0 ATTACHMENTS

a. Attachment 19 – Confined Space Entry Permit
b. Attachment 20 – Confined Space Entry Atmospheric Testing Log
c. Attachment 21 – Confined Space Entry Sign-In/Out Log
d. Attachment 22 – Confined Space Entry Duties

Crane Safety

1.0 PURPOSE

a. The purpose of this section is to establish the requirements to be followed to protect the safety and health of all employees during the operation of cranes, hoists and lifting devices.
b. This section outlines terminology and responsibilities and reviews basic principles for the development of procedures to prevent potentially serious accidents involving cranes, hoists and lifting devices in order to ensure the safety of workers.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent project or Owner's requirements.

3.0 GENERAL

a. The rated load capability of all cranes, hoists and lifting devices shall be visibly marked on each side of the cab or boom and must never be exceeded. Operators shall lift/hoist only those loads whose weight is known. Outriggers on mobile equipment must be used at all times when lifting.
b. The operating manual for the rig shall be in the cab at all times. The instructions and/or specifications within the operating manuals must be followed at all times.
c. Workers shall be warned of all overhead crane work before it begins. Work will be performed on level ground or on cribbing/matting that will support the load. Loads shall not be swung over workers and workers shall not work under overhead loads.
d. Overhead crane electrical equipment shall not exceed 600 volts. Pendant pushbutton controls for overhead cranes shall not exceed 150 volts AC or 300 volts DC. Controls shall fail in the "safe" or neutral position and return to the off position when released. Guards for all electrical equipment in overhead cranes shall have the capacity to support a 200-pound imposed load (i.e., a person).
e. The crane operator or supervisor shall report all damage done to any part of a structure by the crane's operation to the Competent Person for correction as soon as reasonable possible.
f. All equipment modifications must be completed by a qualified person. Written approval from the manufacturer (or licensed engineer) must be obtained prior to any modifications.
g. Rigs and equipment shall be equipped with the following safety devices:
   - Crane level indicator
   - Boom stops (except for derricks and hydraulic booms)
   - Jib stops (if attached)
   - Horn.
   - If equipment is equipped with foot pedal brakes, it must have locks.
   - Hydraulic outrigger jacks and hydraulic stabilizer jacks must have a holding device/check valve integrated into the equipment.

4.0 DEFINITIONS

a. Bridge – that part of a crane consisting of girders, trucks, end ties, footwalks and drive mechanisms that carry the trolley.
b. Crane – a machine for lifting and lowering a load and moving it.
c. Hoist or Hoisting – refers to all crane or derrick functions such as lowering, lifts, swinging, booming in and out or up and down or suspending a personnel platform.
d. Load Block – the assembly of hook or shackle, swivel, bearing, sheaves, pins, and frames suspended by the hoisting rope.
e. Load Refusal – the point at which the ultimate strength of the equipment is exceeded.
f. Maximum Intended Load – the total load of all employees, tools, materials, and other loads reasonably anticipated to be applied to a personnel platform or personnel platform component at any one time.
g. Overhead of Gantry Crane – a crane travelling on an overhead fixed runway structure.
h. Runway – a firm, level surface designed, prepared, and designated as a path of travel for the weight and configuration of the crane or an assembly of rails, beams, girders, brackets, and framework on which the crane travels.
i. Trolley – the unit that travels on bridge rails and carries the overhead crane hoisting mechanism.
j. Wall Crane – a crane having a job supported from a sidewall.

5.0 RESPONSIBILITY

5.1 RESPONSIBLE MANAGER

The responsible manager shall designate a Competent Person to inspect cranes to ensure safe operating condition.

5.2 COMPETENT PERSON

The designated Competent Person shall be a person who possess and can demonstrate the ability to identify existing and potential hazards. The Competent Person shall ensure that all deficiencies are repaired, or defective parts replaced before any crane, hoist or lifting device is used. The Competent Person shall bring in a fully qualified person to perform the annual inspections on all cranes, hoists and lifting equipment.

5.3 QUALIFIED PERSON

A qualified person shall a manufacturer's representative or holding a recognized degree or certificate.

5.4 A/D DIRECTOR

The A/D (Assembly/Disassembly) Director shall be a Competent and Qualified Person. The A/D Director shall be responsible for the assembly and disassembly of the crane, hoist, or lifting device. The A/D Director shall be wholly familiarized with the procedures. The A/D Director is responsible for ensuring the assembly/disassembly crew understands the procedures including the tasks, hazards associated with the tasks, and the hazardous positions to avoid.

5.5 OPERATORS

Operators shall inspect all equipment and gear before each use and shall not use equipment that fails the inspection. All damage to the rig as well as crane caused damage to structures or other equipment shall be reported to the Competent Person as soon as possible. In addition, operators are responsible for:

- Maintaining the operating license for every rig operated.
- Always take the necessary precautions to ensure their safety and the safety of others - including shutting down operations if necessary.
- Never attempt to handle any load that the machine may not be able to carry safely until a supervisor is consulted.
- Report all physical problems (illness, injuries or any condition that could interfere with safe operation) to the supervisor before beginning crane, hoist or lifting operations.
- Secure all equipment when not in use, leaving the machine, during maintenance or when repairs are being made (setting brake, securing boom, lowering bucket, removing drive mechanisms from gear, and/or any other actions to prevent movement of the machine during repair/maintenance).
- Never attempt to operate equipment in high wind speeds (wind speed limitations are determined by the manufacturer, engineer, or qualified person – whichever is more stringent)
- Shall not eat, read, smoke, or perform any other similar activity while operating the equipment and shall not operate the equipment when physically unfit or ill.

5.6 SIGNAL PERSON

A signal person shall be used for all lifts unless determined to be unnecessary by the operator. A signal person shall always be used when the operator's view is obstructed. Only one person shall give signals at a time. The signal person shall be trained and tested by a qualified evaluator. The evaluator shall ensure the signal person meets the following qualifications:

- Knowledge and full understanding of the types of signals used. Knowledge and full understanding of the Standard Method if hand signals are used.
- Competency in the application of the type of signals used
- Basic understanding of equipment operation and limitations
- Knowledge and full understanding of the requirements specified within SIGNALS of this section.

5.7 RIGGERS

Riggers have joint responsibility with crane operators to secure all hitches and remove all loose material before loads are moved or lifted and shall take the following stops to ensure a safe operation:

- DO NOT USE DAMAGED EQUIPMENT
- Check all hardware, equipment, tackle, and slings before use.
- Destroy defective equipment.
- Do not try to lengthen or repair damaged load chain.

6.0 PROCEDURE

6.1 LIFT PLAN

A written procedure or lift plan shall be prepared prior to any lift. At a minimum, the written procedure will include:

- Plot plan showing entry of lifting equipment into the area, final location and working radius of lifting equipment, location of entry for items to be lifted and position of items during lift.

- The calculated weight of load to be lifted, sizes and certified ratings of all lifting equipment (cranes, hoists, cables, slings, blocks, deadmen, etc.)
- Certifications/licenses for all operators and equipment.
- A job safety analysis (JSA), pre-task plan (PTP), or similar written hazard analysis which identifies the tasks and work area, associated hazards, and contingency plan(s).

*See Attachment 24 – Crane Lift Plan

6.2 GROUND CONDITIONS

a. Prior to cranes, hoists, or lifting devices being brought onto site, Watertap Inc shall ensure ground conditions are firm, drained, and graded (as needed).
b. In addition to firm and level ground, the equipment manufacturer's specifications for adequate support must be met.
c. Operators will be informed of any known underground hazards (i.e., voids, tanks, utilities, etc.) prior to the use of the equipment.
d. Operators shall have the final decision if ground conditions meet the requirements. If ground conditions do meet the requirements, Watertap Inc shall ensure every effort is made to meet the requirements.

6.3 ASSEMBLY/DISASSEMBLY

a. Prior to assembly/disassembly operations begin, all workers involved must complete a job safety analysis (JSA), pre-task plan (PTP), or similar written hazard analysis. See Attachment 4 – Job Safety Analysis, Attachment 5 – Pre-Task Plan (PTP).
b. Operators shall be informed prior to any worker moving to a location out of his/her view and shall not move any part of the equipment until the worker has moved out of said location.
c. Workers shall avoid being under the boom, jib, or other components when pins are being removed.
d. Load capacities for all equipment used for assembly/disassembly, including assist cranes, shall never be exceeded.
e. Assembly/Disassembly operations requiring an assist crane must adhere to the guidelines and precautions specified within 6.0-PROCEDURES of this section.
f. After assembly is completed, the entire rig and equipment shall be inspected in accordance with the inspection requirements specified within 6.10-INSPECTIONS of this section.

6.4 SIGNALS

a. Hand signals
   - Hand signals shall be the Standard Method Each project and/or facility shall establish site-specific hand signals.
   - Hand signals shall be given to the operator by a clearly trained and designated person with the ability to see the load.
   - If using non-standard hand signals, the signal person and operator must be in agreeance with the non-standard hand signals to be used.
b. Radio, Telephone, Other Electronic Transmission
   - Devices shall be tested on-site prior to lifts.
   - Signal transmission must be through a dedicated channel
   - The operator shall receive signals through a hands-free system
c. Voice Signals
   - The signal person and operator must be in agreeance with the voice signals to be used.
   - Voice signals shall be given in the following order: function, direction, distance/speed, function, stop.

6.5 LOAD CONTROL

a. The operator has the responsibility for all safety matters concerning the equipment.
b. The operator and rigger have joint responsibility to secure all hitches and remove loose materials before loads are moved/lifted.
c. Operators and riggers shall observe the following precautions:
   - Suspended loads shall be controlled with tag lines whenever possible. Never use hands to control suspended loads and never leave a suspended load unattended.
   - The swing radius of the counterweight must be barricaded at all times.
   - Riggers must remain alert to shifting loads while hooking on and be alert to pinch points, keeping hands and feet clear of the sling while it is being tightened.
   - Never guide lines by hand or foot onto drums - always use a stick or iron bar.
   - The sling angle shall be kept over 45°. If this is not possible, consult with the Competent Person before proceeding with the lift.
   - Gantry and overhead cranes shall have power control braking systems capable of maintaining safe lowering speeds of rated loads.
   - Trolleys and bridges shall have effective braking systems.

- A safety line must secure all persons working out of a cage being hoisted or supported by a crane.

d. A non-conductive tag line shall be attached to each load.

6.6 BOOMS

a. All booms must be kept at least 20 feet from high voltage lines unless the lines have been de-energized or effectively guarded to prevent accidental contact.
b. Booms shall be marked with a load capacity that shall not be exceeded.
c. Never subject booms to side loads.
d. Telescopic boom cranes manufactured after February 28, 1992, shall be equipped with a device which automatically prevents damage from contact between the load block, overhaul ball, or similar component, and the boom tip (Anti-Two-Block).

6.7 INSPECTIONS

a. The operator shall inspect the entire rig and equipment before each use to make repairs/adjustments to the mechanisms that could interfere with operations and ensure that all parts of the crane or hoisting system are properly operational. Including:
   - Loose gears
   - Trolley or bridge travel
   - Clear runways
   - Brakes
   - Limit switches
   - Rings
   - Cables and similar items
   - Hoisting and lowering
   - Keys
   - Railings
   - Warning bells/alarms
   - Sheaves and/or drums
   - Chain drives
   - Safety devices (6.2(f) of this section)
b. The following inspections shall be performed prior to crane use:
   - Ensure no deterioration of leaks in lines, tanks, valves, drain pumps and other parts of the air of hydraulic system.
   - Ensure that electrical testing is done for the dielectric integrity of the boom, basket, and control assembly for insulating aerial basket equipment.
   - Ensure that lifting hooks are not deformed, do not show excessive wear, and are not cracked.
   - Ensure the hoisting or load chains, including end connections, have no excessive wear, twist or distorted links that interfere with proper function or are stretched beyond the manufacturer's recommendations.
c. If repairs/adjustments must be made to the rig and equipment to ensure safe operation, such repairs/adjustments must meet the manufacturer's specifications. If the manufacturer's specifications are not available, repairs/adjustments shall be developed by a licensed engineer and/or a qualified person. The entire rig and equipment shall be inspected by the qualified person after any repairs/adjustments have been completed and prior to initial use.
d. Monthly Inspections - shall be conducted as follows:
   - Inspect cranes using Attachment 23 – Crane Inspection Record
   - Inspect hooks using Hook Replacement Criteria on Attachment 23 – Crane Inspection Record. The inspector's signature, hook serial number and date of the inspection shall be recorded.
   - The load chain shall be inspected. The inspector's signature, chain identifier and date of inspection shall be recorded.
   - A visual inspection of the supporting structure shall be conducted.
e. Annual Inspections - a qualified, licensed professional engineer or manufacturer's representative selected by the facility's Competent Person shall perform annual inspections. The inspector shall file a record of the results at the facility with the facility's Competent Person and Safety Representative.
f. Return-to-Service Inspections - shall be performed when a crane has been idle for an extended period of time. The crane shall be inspected prior to being returned to service. This inspection shall consider the following:
   - If the crane is idle one to six months, perform monthly inspection.
   - If equipped, a wire rope inspection shall be performed for rope diameter, broken outside wires, worn outside wires and the condition of end connections as well as kinking, crushing, cutting or unstranding.
   - If the crane is idle for over six months, the facility's Competent Person shall perform all checks contained in the annual inspection. If the annual inspection is out-of-date, it shall be performed at that time per the annual inspection requirements.
g. For rented or non-company owned cranes, crane owners shall provide evidence of annual inspection by a third-party inspection agency not under the control or ownership of the crane owner and approved by the Safety Director.
   - All repairs and adjustments noted on the inspection shall be corrected prior to next use.
   - Receipt of third part inspection shall be submitted and reviewed prior to use on the jobsite or project.

6.8 TRAINING

a. Operators shall be licensed to operate the rigs to which they are assigned with the license filed at the facility. Operators shall be trained in the facility-specific accepted hand signals for crane and hoisting equipment operation.
b. Riggers shall be trained in the safe handling of slings, hitches, ropes, suspended loads, and any other handling equipment as well as accepted hand signals for crane and hoisting equipment operation.
c. Signal person shall be trained in the types of signals used and basic understanding of equipment operation and limitations. Knowledge and full understanding of the Standard Method if hand signals are used. Signal person shall understand the requirements as specified in 6.4-SIGNALS of this section. Signal person shall be tested (practically and written/verbal) by a qualified evaluator.

6.9 RECORDKEEPING

a. All current operators' licenses shall be filed at the facility.
b. Operator, rigger, and signal person training records shall be retained at the facility for the duration of their employment in that capacity.
c. The following inspection records shall be retained for the previous calendar year and the current year:
   - Monthly inspections for crane and hoists.
   - Monthly hook inspections.
   - Annual hoist, crane and insulated aerial basket inspections.

7.0 REFERENCES

a. American National Standards Institute (ANSI), Standard B-30.
b. Society of Automotive Engineers (SAE).
c. Power Crane and Shovel Association - Mobile Hydraulic Crane Standards
d. 29 CFR 1910 Subpart N - Materials Handling and Storage
e. 29 CFR 1919 - Gear Certification
f. 29 CFR 1926 Subpart CC – Cranes & Derricks
g. 29 CFR 1926 Subpart N – Helicopters, Hoists, Elevators and Conveyors.
h. 29 CFR 1926 Subpart CC – App A Standard Hand Signals

8.0 ATTACHMENTS

b. Attachment 23 – Crane Inspection Record
c. Attachment 24 – Crane Lift Plan

Electrical Safety

1.0 PURPOSE

a. The purpose of this section is to establish guidelines whereby reasonable and adequate methods are utilized to assure adequate protection from electrical shock, arc and blast hazards for employees who are required to perform work in the vicinity of exposed, energized circuits.
b. This section shall outline the terminology and responsibilities and review the basic principles to ensure safety and efficiency.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. The following information deals with hazards and precautionary measures necessary to protect personnel when involved in general electrical operations.
b. Detailed procedures cannot be written to cover every conceivable situation that may arise. In the absence of such procedures, when there is a question of safe working conditions or action, it shall be resolved before work begins and a job plan prepared.
c. Knowledge in the specifics of this section does not make a person qualified to work in proximity of energized or potentially energized exposed electrical parts.
d. Work practices shall be established at each work area, which would include, at a minimum, the specific electrical safety concerns/activities referenced in this section.

4.0 DEFINITIONS

a. Alive or Live (Energized) – connected to a source of electrical energy. "Live" is often used in place of the term "current-carrying."
b. Bond – an electrical connection from one conductive element to another to minimize potential differences, provide conductivity for fault current or mitigate leakage current and electrolytic action.
c. Circuit Breaker – a device designed to open and close a circuit by non-automatic means and to open the circuit automatically on a predetermined over current without injury to itself when properly applied within its rating.
d. Dead (De-Energized) – free from electrical connection to a source of potential difference or electrical charge and not having a potential difference from earth.
e. Explosion Proof Apparatus – an apparatus enclosed in a case that is capable of withstanding an explosion of a specified gas or vapor and will not ignite a surrounding flammable atmosphere.
f. Fuse – an over current protective device with a circuit opening fusible section.
g. Ground – conductive body, usually the earth, to which an electric potential is referenced or a conductive connection by which an electric circuit or equipment is connected to reference ground or the connecting or establishment of a connection of an electric circuit or equipment to reference ground.
h. Ground Fault Circuit Interrupter (GFCI) – a device that interrupts the electric circuit to the load when a fault current to ground exceeds that required for operating the over current protective device of the supply circuit.
i. High Voltage – electrical current above 15,000 volts.
j. Insulated – separated from other conducting surfaces by a dielectric substance (including air space) offering a high resistance to the passage of current.
k. Low Voltage – electrical current from 0 to 600 volts.
l. Medium Voltage – electrical current from 601 to 15,000 volts.
m. Qualified Employee – a person who, through experience and/or training, is familiar with the electrical operation to be performed and the hazards involved.

5.0 RESPONSIBILITY

5.1 RESPONSIBLE MANAGER

The Responsible Manager shall identify tasks to be completed only by Qualified Employees and communicate specialized tasks to all employees.

5.2 QUALIFIED EMPLOYEES

Qualified Employees shall perform their work according to established safe work practices and procedures.

5.3 SAFETY REPRESENTATIVE

The Safety Representative shall provide guidance on safe work practices and procedures.

6.0 PROCEDURE

All electrical circuits shall be treated as live until their condition is known. Even low voltages shall be treated as dangerous. In addition, the following precautions shall be taken:

- All work on systems involving 600 volts or more shall be conducted by two persons and one of these must be a qualified electrician.
- Never overuse a circuit or oversize a circuit breaker
- Never enter a transformer bank/high yard enclosure except with a qualified electrician, and only when specifically authorized to enter.
- Conduct a tool count before beginning work and after work is completed on or around electrical equipment.
- All portable ladders shall have non-conductive side rails.

6.1 RESCUE

a. When rescuing persons in contact with an electrical circuit, first disconnect the circuit, if possible, and ensure that rescuer is standing on a dry surface.
b. Use a dry belt, coat, handkerchief, rope, or other non- conducting material to loop over the victim's feet, hand or head and drag them away from the contact to safety.
c. Immediately summon emergency medical services and then assess the condition of the victim and the need for CPR/First-Aid.

6.2 WORK ON OR NEAR EXPOSED ENERGIZED PARTS

a. It is the policy of Watertap Inc that parts operating at 50 volts or above to which an employee may be exposed shall be de-energized before work is done on or near them, unless it can be demonstrated that de-energizing introduces additional or increased hazards. Additional or increased hazards would mean it would be a threat to human life and not merely the equipment or process - or they can demonstrate it is not feasible.
b. Before any work on or near exposed energized parts commences, all persons involved shall be briefed on the safety concerns and precautions regarding their work assignments. Whenever work conditions or methods change that could potentially compromise personnel safety, additional briefings shall be held.
c. Personnel performing work on exposed energized equipment and parts shall be qualified and have, at least, one other qualified person present, within either sight or sound, who is knowledgeable of the hazards in the work and applicable emergency procedures.

6.3 ELECTRICAL TESTING AND MEASUREMENT

a. Authorization to Perform Electrical Testing and Measurements

Employees are authorized to perform electrical testing and take electrical measurements only after they have met the following criteria:

- They have successfully completed an eight-hour electrical safety course approved by the safety department.
- They are familiar with the design and hazards related to the equipment to be tested.
- They have been deemed qualified to perform the testing or measurements by a supervisor qualified to perform electrical testing and measurements.
- Employees shall not perform any electrical testing or measurement that requires them to contact exposed energized parts or equipment operating at more than 480 volts, nominal.

b. Safe Use of Test and Measurement Equipment

- Test equipment should be checked for proper operation immediately before and immediately after this test.
- When using a voltmeter ohmmeter (VOM), oscilloscope or other piece of test equipment, it is absolutely essential that the equipment be rated for the voltage of the system under test.
- Never use a VOM unless it has the fuse protection recommended by the manufacturer. Changing the size or type of fuse can change the safety characteristics of the device and present hazards.
- Remember, when taking a current reading, the VOM is placed in series with the circuit to measure amperage. The VOM is set in a low impedance mode in order to allow the current to flow. If the VOM is used in this mode to measure voltage, the VOM acts as a short circuit. Be sure the correct fuse is in place to protect yourself.
- All test and measurement equipment shall be inspected prior to use. All probes and leads must be in good condition with no deterioration in the insulation. Defective equipment will not be used.
- The connecting and disconnecting of test leads and probes should be performed by a qualified customer representative whenever possible. The connecting and disconnecting of test leads and probes in switchgear presents added risk and shall be performed by a qualified customer representative or qualified subcontractor employee.

- Workers shall not contact exposed, electrically energized components unless they use adequate personal protective equipment, position themselves outside the minimum clearance zone and work with approved and suitably insulated test equipment and nonconductive tools.
- Never perform any work, including electrical testing, that you feel is unsafe.

6.4 TOOLS AND TEST EQUIPMENT

a. All tools and test equipment shall be maintained in proper working condition.
b. Only tools designed for the task shall be used. Meters should be rated for the voltage to which they will be exposed.
c. Insulated tools shall be used when working in proximity to energized electrical equipment. The tools should display the international 1000V symbol.
d. All tools and test equipment should be inspected prior to and after use.
e. All tools shall be maintained in top working order thereby minimizing the potential for slippage or breakage during use.
f. Only tools specifically designed for the task at hand shall be used

6.5 INSULATED TOOLS

When working in proximity to energized conductors and exposed electrical parts, workers shall use insulated tools and equipment if the tools and equipment have the potential to make contact with such conductors and/or exposed electrical parts. Tools used as insulated must display the international 1000V symbol and be inspected prior to use.

6.6 PORTABLE POWER TOOLS

a. Portable power tools shall be properly stored when not in use. Electrical power tools shall be visually inspected before each shift's use for external defect such as deformed or missing pins or insulation damage and for indication of possible internal damage. Tools found to be defective or damaged shall be tagged "OUT OF SERVICE" and not used until repaired.
b. A grounding conductor that is contained within the same cable or cord as the circuit conductors shall ground electrical portable power tools (except for battery powered or double insulated types).
c. Tools shall be cleaned and maintained in accordance with manufacturer's instructions.

6.7 PERSONAL PROTECTIVE EQUIPMENT (PPE)

a. An employee, or others, who expose themselves to the risk of electrical shock, such as when in proximity to energized or potentially energized conductors or exposed electrical parts, shall use PPE.
b. PPE shall be appropriate for the specific parts of the body to be protected and for the work to be performed.
c. PPE shall be maintained in a safe and reliable condition and shall be inspected and/or tested before and immediately after use. Damaged PPE or PPE failing to pass test requirements shall not be used and removed from service.

6.8 SELECTION OF PPE

a. Watertap Inc Safety Director should be consulted for guidance in minimal PPE required when performing electrical testing and measurements.
b. Configuration of the workspace and other environmental factors may require wear of additional PPE.
c. PPE shall be applied according to adjacent electrical hazards if they are greater than the electrical hazards present in equipment being tested and measured.

6.9 HEAD PROTECTION

a. Employees shall wear non-conductive head protection whenever work is being performed in proximity to energized or potentially energized electrical conductors and parts. Head protection shall conform to *ANSI Z89.1 - Safety Requirements for Industrial Protective Headgear for Electrical Workers, Class B.*
b. Hard hats shall be kept clean and in good condition and shall not be altered or defaced in any manner. Approved markings shall not contain conductive materials.

6.10 EYE AND FACE PROTECTION

PPE for the eyes and/or face shall be used where there is danger of injury to the eyes and/or face from electrical arcs or flashes, or from flying objects or falling objects from an electrical explosion. Eye and face protection equipment shall conform to ANSI Z87.1 *Practice for Occupational and Educational Eye and Face Protection.* If the eye and/or face protective device exhibits broken parts, heat distortion or excessive scratches on the lens it shall not be used and removed from service.

6.11 CLOTHING AND APPAREL

a. It is recommended that all electrical employees wear 100% cotton clothing while engaged in all activities required in their job.
b. When performing work on exposed electrical equipment, do not wear any clothing with exposed zippers, buttons, metal fasteners or loose/flapping/baggy clothing.

c. Conductive articles of jewelry, such as watch bands, bracelets, rings, necklaces, and oversized belt buckles shall not be worn when there is a danger of contact with energized parts.
d. Nomex shall be worn where there is a danger of an electrical explosion or severe arcing. The Nomex shall be examined by the craftsman for rips, tears and/or flaws in the material or workmanship prior to each use. If they are damaged in any way, they shall not be used and removed from service.

6.12 RUBBER INSULATED PROTECTIVE EQUIPMENT

a. Those employees assigned PPE shall be responsible for the care and storage of the issued equipment
b. All new protective rubber equipment shall be tested by a certified testing laboratory and documented prior to being issued for service.
c. Rubber protective equipment shall be tested by a certified testing laboratory at intervals not to exceed the intervals listed below:

	After Issued for Use	Shelf Life (Not Issued)
Gloves	6 Months	12 Months
Blankets	12 Months	12 Months

d. Rubber insulated protective equipment shall be inspected for damage before each shift's use and immediately following any incident that can reasonably be suspected of having caused damage. Insulating equipment with any of the following defects shall not be used and must be removed from service:
   - A hole, tear, puncture or cut.
   - Ozone cutting or ozone checking (the cutting action produced by ozone on rubber under mechanical stress into a series of interlacing cracks).
   - An embedded foreign object.
   - Any of the following texture changes: swelling, softening, hardening or becoming sticky or inelastic.
   - Any other defect that damages the insulating properties.
e. Rubber Insulating Gloves
   - When exposed to electrical hazards of 50 volts or greater, Class "0" (1000V rated) rubber insulating gloves shall be used. At no time shall the rating of the glove be exceeded. Gloves shall conform to ANSI/ASTM D120 and ASTM F496.
   - Each craftsman shall test their rubber gloves at the start of the shift they are to be used. To test a glove for pinholes and other damage, fill the glove with air, roll up the cuff of the other glove to make a seal and squeeze the glove. Then hold the inflated glove close to the face and ear to feel and listen for air escaping.
   - Gloves in service shall be kept in canvas glove bags. Gloves shall not be folded, creased, or rolled while in storage. Gloves shall be protected from heat, ozone, or prolonged exposure to direct sunlight and from contact with sharp articles or materials likely to damage gloves or cause deterioration of the rubber. Clean only with lukewarm water and mild soap detergent. Do not use solvents, oils, or grease.
f. Rubber Insulating Blankets
   - Rubber insulating blankets shall be used to provide additional protection when work is being performed adjacent to exposed electrical parts. Blankets shall conform to ASTM D1048 and ASTM F479.
   - Defective blankets shall not be used and shall be removed from service. Blankets shall be stored in a cool, dark, and dry location free from ozone, chemicals, oils, solvents, damaging vapors, and fumes and away from electrical discharges. Blankets shall be stored in a bag, box, container, or compartment that is designed for and used exclusively for them and shall not be kept folded, creased, distorted, or compressed in any manner that will cause stretching or compression.
   - Blankets shall be cleaned as necessary to remove foreign substances and shall be wiped clean of any oil, grease, or other damaging substances as soon as practicable. Clean only with lukewarm water and mild soap detergent. Rinse thoroughly with water to remove all the soap or detergent.

6.13 WORKING CLEARANCES

a. Sufficient access and working space shall be provided and maintained about all electric equipment to permit ready and safe operation and maintenance of such equipment.
b. The NFPA 70E states that a minimum of three feet be required in front of equipment rated 0 to 150 volts to ground. This is to ensure that any access to equipment requiring examination, adjustment, servicing, or maintenance while hot should provide the worker with adequate workspace.
c. For voltages between 151 and 600 volts to ground, a three-foot clearance is still required between exposed live parts and other surfaces. If the other surfaces are grounded, then the distance must be increased to 3½ feet. If there are exposed live parts on either side of the workspace, then a clearance of four feet is required.

d. Areas around electrical equipment with emphasis on those areas with access doors and panels must be kept clear of materials, equipment or any other article that will deter access to the electrical equipment. A clearance of at least 10 feet shall be maintained including overhead power lines, this includes working around and under lines as well as vehicles and/or mechanical equipment.

6.14 WORK AREA PROTECTION

a. In some instances, it will be necessary to appropriately barricade or otherwise identify work areas as containing exposed electrical hazards not normally encountered during routine maintenance of the equipment and/or conductors located therein. This normally will be the case during renovations and additions to installations where electrical equipment is located. By appropriately identifying the areas, persons are given a higher degree of hazard awareness.
b. If the work exposes energized parts that are normally protected, danger signage shall be displayed, and suitable barricades shall be erected to restrict other persons from entering the area.
c. When determining the size of the safe work zone, the area where work is performed, consideration must be made as to the types and sizes for conductive materials and equipment to be used in the area.
d. Employees may not enter spaces containing exposed energized parts unless illumination is provided which enables the employees to perform the work safely.
e. Protective measures shall be taken within 10 feet of any vehicular and mechanical equipment.

6.15 APPROACH DISTANCES FOR QUALIFIED EMPLOYEES TO AC VOLTAGE

Qualified employees shall maintain minimum approach distances when exposed to energized electrical parts. Table S-5 of OSHA 29 CFR 1910.133 should be referenced to help determine approach distances.

6.16 APPROACH DISTANCES FOR UNQUALIFIED EMPLOYEES TO AC VOLTAGE

Unqualified employees shall maintain a minimum working clearance of ten feet from exposed and non- insulated electrical parts operating at up to 50,000 volts. In the event that operation of maintenance activities require an unqualified employee to come in proximity to parts energized at higher than 50,000 volts, Watertap Inc Safety Director should be consulted prior to start of the work.

6.17 LIGHTING/ILLUMINATION

a. When working with light bulbs and lighting fixtures, use only approved lighting equipment when working in vessels, boilers, confined spaces, and other hazardous areas. Disconnect the circuit before changing light bulbs. Do not use oversized lamps in vapor-proof globes or other fixtures. Do not remove the outer globes of vapor-proof lights except when cleaning or replacing bulbs.
b. Illumination levels shall be provided so that at no time will the level of illumination become a factor contributing to a potential electrical accident.
c. Employees may not enter spaces containing energized electrical equipment until adequate illumination is provided.
d. Only 12-volt explosion proof lighting equipped with a GFCI may be used in confined spaces.
e. When lighting is used in wet conditions, the lighting must be equipped with a GFCI.
f. Lighting to be used in areas that may contain explosive gases or vapors must be approved for such use.

6.18 CORDS

Visually inspect electrical cords before each use. Do not use worn or defective cords. Have damaged cords repaired or replaced immediately. In addition, the following precautions shall be taken when working with electrical cords:

- Do not use extension cords for permanent installations.
- Use only approved outlets and connections. Notify supervisor of the need to move or add and outlet.
- Ensure that the cord is properly connected, grounded, and protected from traffic.
- Test all utility extension cords for continuity and grounding quarterly.
- When grounded electrical systems are not available, use only double insulated tools and equipment.
- Use care to prevent the cord from becoming a trip hazard by being wrapped around any part of the body.

6.19 LOCKOUT/TAGOUT

Follow Lockout/Tagout procedures whenever working on electrically operated equipment. Reference the Lockout/Tagout section of the Safety and Health Manual for specific procedures and further guidance.

6.20 INSTALLATION AND REPAIR

Install generators, motors, control equipment and conductors in such a manner that exposed live parts are either properly guarded or insulated to provide adequate protection for all operating personnel. Guards and protective items removed during the repair of electrical equipment are to be replaced immediately after repair work is completed. Provide sufficient space (minimum three feet) for safe inspection, repair or replacement when installing electrical equipment.

6.21 GROUNDS

Appropriate grounds will be utilized for electrical equipment to ensure protection of employees, prevent damage to equipment and maintain continuity of electrical service. Qualified electricians will determine what grounds are appropriate and perform the installation of such grounds.

6.22 TRAINING

a. Qualified Personnel
   - All training must be done prior to the commencement of work.
   - Whether an employee is considered to be "qualified" will depend on various circumstances in the workplace. It is possible and, in fact likely, for an individual to be considered qualified with regard to certain equipment in the workplace but unqualified as to other equipment.
   - All personnel to be qualified to perform work on electrical devices and systems shall be trained in, and be competent in, all safety related work practices, procedures and requirements that pertain to their respective work assignments. They shall also be trained in and be competent in any other safety practices including emergency procedures which are necessary for their safety. The training shall include, but not limited to:
     - Skills and techniques necessary to distinguish exposed energized parts from the other parts of electric equipment.
     - Skills and techniques necessary to determine the nominal voltage of exposed live parts.
     - Knowledge and understanding of the clearance distances corresponding to voltages which employees will be exposed.
     - Proper use of the special precautionary techniques, PPE, insulating and shielding materials and insulated tools associated with working on or near exposed parts of electric equipment.

b. Authorized Personnel
   - All non-qualified personnel who, in the performance of their job, would be required to enter a room of area containing exposed energized conductors or parts, or who must approach in proximity to exposed conductors must receive training to become "Authorized." This training must contain the following:
     - The ability to recognize potentially hazardous energy and its potential impact on workplace conditions.
     - Skills and techniques necessary to distinguish exposed energized parts from the other parts of electrical equipment and machines and know how to avoid them.
     - Knowledge and understanding of the clearance distances to be maintained.

c. Affected Personnel
   - Persons who, in the course of performing their assigned tasks, come in contact with electrical power sources, tools and other portable electrically powered devices that are generally not found in the public domain, shall be trained in the following:
     - The ability to recognize potentially hazardous energy and its potential impact on workplace conditions.
     - Proper handling and use of portable electrical equipment.
     - Proper techniques for opening and closing of circuits and necessary procedures to follow before replacing fuses or resetting breakers.

d. Training Type and Retraining
   - Re-training is required when an employee is found to be non-compliant with safety-related work practices.
   - Both lecture and hands-on training shall be used to deliver training.
   - Schedules shall be established to provide retraining of personnel to stay current on any work techniques and procedural changes.
   - Periods between retraining shall not exceed three years.

6.23 RECORDS

All training records shall be retained for the duration of the employee's employment.

6.24 INSPECTIONS

a. Tools used in servicing or maintaining electrical equipment shall be inspected before each use and periodically to ensure that they are safe for use.
b. Tool inspection shall include utility extension cords.

7.0 REFERENCES

a. ANSI C2 and C3, National Electrical Safety Code
b. ANSI/ASME B20.1, Safety Standard for Conveyors and Related Equipment
c. ANSI/IEEE Std. 516, IEEE Guide for Maintenance Methods on Energized Power Lines
d. ASTM F819-83a, Definitions of Terms Relating to Electrical Protective Equipment for Workers

e. ASTM F855-90, Specifications for Temporary Grounding Systems to Be Used on De-Energized Electric Power Lines and Equipment.
f. ASTM F1236-89, Guide for Visual Inspection of Electrical Protective Rubber Products
g. 29 CFR 1910.269, Electric Power Generation, Transmission and Distribution
h. 29 CFR 1910 Subpart I, Personal Protective Equipment
i. 29 CFR 1910 Subpart O, Machinery and Machine Guarding
j. 29 CFR 1910 Subpart P, Hand and Portable Power Tools and Other Hand-Held Equipment
k. 29 CFR 1910 Subpart S, Electrical
l. 29 CFR 1926 Subpart I, Tools, Hand and Power
m. 29 CFR 1926 Subpart V, Power Transmission and Distribution

Electrical Safety
Assured Grounding/Electrical Ground Fault Protection

1.0 PURPOSE

The purpose of this section is to ensure all electrical equipment, tools, and cords, which can expose employees to electrical hazards, such as electrocution, meet OSHA standards and to provide adequate means of correcting identified hazards.

2.0 SCOPE

The following equipment requirements and test procedures must be conducted and documented to ensure compliance with OSHA requirements covering all electrical equipment, tools, cords, or receptacles which are not part of the permanent wiring of a building or structure. These requirements and procedures also apply to equipment connected by cord or plug, which is available for use or used by employees.

3.0 GENERAL

a. When an electrical ground fault occurs, the current flows through the path with minimum impedance to the ground. It is imperative that an employee does not become the conductor of this current.
b. There are two approved methods for protecting workers from ground fault incidents:
   - Use of a ground fault circuit interrupter, commonly referred to as GFCI of GFI.
   - Implementation of an assured grounding program.

4.0 DEFINITIONS

a. Ground – a conducting connection, whether intentional or accidental, between an electrical circuit or equipment and the earth, or some conducting body that serves in place of earth.
b. Grounded Conductor – a system or circuit conductor that is intentionally grounded.
c. Ground Fault Circuit Interrupter – a device whose function is to interrupt the electrical circuit when a fault current to ground incident occurs.

5.0 RESPONSIBILITY

The officers of Watertap Inc are responsible for implementing this program to include designating a competent person to administer this procedure.

6.0 PROCEDURES

6.1 GROUND FAULT CIRCUIT INTERRUPTER (GFCI)

a. All 120-volt, single phase 15 and 20-amp receptacle outlets on work sites, which are not part of the permanent wiring of the building or structure, and which are in use by employees, shall have an approved ground fault circuit interrupter for personnel protection.
b. Receptacles on a two-wire, single phase portable or vehicle-mounted generator, rated not more than 5 kW, where the circuit conductors of the generators are insulated from the generator frame and all other grounded surfaces, need not be protected with ground fault circuit interrupters.
c. Attention shall be given to the proper installation and maintenance of GFCIs within the National Electric Code (NEC). The system shall be tested prior to being put into service and the test results documented and kept on file.
d. If a fault trip-out occurs after the circuit has been tested and put into service, a thorough investigation must be made to determine the cause. The necessary repairs or corrections shall be made before reusing.
e. In purchasing GFCIs, they shall conform to the Underwriters Laboratories (UL), Standard 943, GFCI.
f. Each circuit protected by a circuit breaker GFCI requires its own neutral conductor.

6.2 ASSURED EQUIPMENT GROUNDING PROGRAM

a. An established and implemented assured equipment grounding program shall cover all cord sets, receptacles which are not part of the permanent wiring of the building or structure and equipment connected by cord and plug, which are available for use or used by employees.
b. Inspections of included equipment shall be conducted:
   - Daily or before each use
   - Before equipment is returned to service following repairs
   - Before equipment is used after any incident, which can be reasonably suspected to have caused damage to the equipment.
   - Every calendar quarter
c. Each cord set, electrical tool, receptacle, and piece of electrical equipment shall be tested to assure continuous ground circuit, and that the equipment- grounding conductor is connected to its proper terminal. The testing equipment shall be capable of testing for ground conductor continuity and resistance, line fault and proper connection of conductors and terminals. All testing equipment shall be calibrated and tested every three months and these results shall be documented.

d. Receptacles, which are a permanent part of the wiring of the permanent building or structure, are excluded from the quarterly testing and inspection requirement of this procedure. However, after installation and before initial use, each receptacle shall be tested.
e. To verify inspection and testing, a color-coding system shall be developed. Each item inspected shall be coded with the appropriate color for that quarter. Colored tape affixed to the cord at the plug end is used to indicate a piece of equipment has been inspected and tested. The color-coding system shall be in conformance with the following table:

Quarter	Months	Color
1st	January, February, March	White
2nd	April, May, June	Green
3rd	July, August, September	Red
4th	October, November, December	Orange

- Any electrical tool, cord set or piece of electrical equipment which bears an expired inspection color or is missing an inspection color shall be considered defective and shall be removed from service until it has been inspected and properly coded.
- Any individual who authorizes the use of expired equipment is subject to disciplinary action(s).
- Daily, each cord set, electrical tool or piece of electrical equipment shall be visually inspected by the user before use for signs of damage. Equipment found to be damaged or defective shall be immediately removed from service until repaired and processed through the electrical equipment testing protocol outlined in this section.

Excavations and Trenches

1.0 PURPOSE

a. The purpose of this section is to establish the requirements to be followed to protect the safety and health of employees during work requiring an excavation and/or trench.
b. To prevent potentially serious accidents involving workers from being engulfed by unsupported sides of excavations, proper preparation of earth support of the open sides of excavations is outlined.
c. This section outlines the terminology, responsibilities and reviews the basic principles to ensure safety and efficiency.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 DEFINITIONS

a. Benching – cutting the sides of an excavation to form one or a series of horizontal levels of steps. Also referred to as "terracing."
b. Competent Person – individual who can identify existing and reasonable predictable hazards in the surroundings or working conditions. This person is authorized to take prompt corrective measures to eliminate such hazards.
c. Excavation – any man-made cut, cavity, trench or depression in an earth surface formed by earth removal.
d. Protective System – any support, sloping, benching or shield system used to protect employees from cave-ins caused by material that could fall or roll from an excavation face into an excavation and cause the collapse of adjacent structures into the excavation.
e. Shoring – any metal, hydraulic, mechanical, timber or other structures supporting the sides of an excavation and is engineered to prevent cave-ins.
f. Sloping – cutting excavation sides in a manner in which they are inclined away from the excavation to prevent cave-ins. The angle of the incline required to prevent a cave-in varies with soil type, environmental conditions of exposure and application of surcharge loads.
g. Soil Classification System – a method of categorizing soil and rock deposits in a hierarchy including stable rock, Type A, Type B and Type C in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and on the characteristics of the deposits and the environmental conditions of exposure.
h. Support System – the underpinning, bracing, shoring or other means supporting an adjacent structure, underground installation or side of an excavation.
i. Trench – a narrow excavation less than 15 feet wide (measured at the bottom) and generally deeper than its width.

4.0 RESPONSIBILITY

4.1 RESPONSIBLE MANAGER

The Responsible Manager is responsible for designating, in writing, a Competent Person for the safe oversight of excavation and trenching activities.

4.2 PROJECT MANAGER

The Project Manager is responsible for gathering all available information on utilities and structures in the area of the excavation/trench and notifying landowners, utilities and owners of any underground structures that may be affected by the excavation. The Project Manager is responsible for ensuring all such utilities and underground structures are marked prior to digging. The Project Manager shall provide the crew performing the excavation with all pertinent information.

4.3 COMPETENT PERSON

a. The Competent Person shall determine whether or not the excavation constitutes a permit-required confined space.
b. A daily inspection of the excavation site shall be performed to assess current conditions, following which the Competent Person shall declare the excavation safe for employees to enter at the beginning of each shift.
c. The Competent Person is also responsible for ensuring the following tasks are accomplished:
   - Determine the classification of the soil in each layer of the excavation.
   - Perform air quality test for excavations deeper than four feet to establish that there is adequate oxygen and no toxic gases and/or vapors are present.
   - Obtain a licensed, professional engineer's assistance when an excavation is deeper than twenty feet.
   - Determine if Emergency Rescue Services will be needed for each excavation, and if so, arrange for rescue services to be "on call." All members of the excavation crew shall be informed of the proper method for summoning emergency help.

4.4 EMPLOYEES

a. Employees shall be familiar with the Competent Person for the excavation by name and by sight and shall enter the excavation only after the Competent Person has given approval.
b. Employees shall report any of the following conditions to the Competent Person immediately upon discovery:

- Water accumulation.
- Cracks/Fissures in sidewalls of excavation.
- Sloughing of sidewall material.
- Changes in air quality in the excavation.

c. Employees shall never work or walk under a suspended load.
d. Employees shall keep clear of equipment swing area.

4.5 SAFETY DIRECTOR

The Safety Director is responsible for ensuring that this guideline is being followed. Further responsibilities include:

a. Provide or locate training for the Competent Person for excavations.
b. Provide awareness level training for all Watertap Inc employees entering the excavation.
c. Assist the Competent Person in locating an appropriately trained Emergency Rescue Team, if required.

5.0 PROCEDURE

5.1 GENERAL RULES

The rules shall be considered when working around excavations:

a. No one shall be allowed in the excavation until the Competent Person has approved entry for that shift.
b. The Competent Person shall determine the classification of the soil at each layer that is uncovered. The classification shall be updated as needed.
c. All excavations deeper than five feet must be shored or slopes according to the drawings in "Examples of Sloping, Benching and Shielding" based on the classification of the soil as determined by the Competent Person.
d. The quality of air in excavations deeper than four feet shall be tested before each work shift with attention to oxygen and heavier-than-air toxic gases/vapors.
e. A means of egress (ladder, stairs, walkable ramp, etc.) shall be available within 25 feet lateral travel of all personnel who enter the excavation.
f. Operators shall never swing a load over a worker or work area where workers are present.
g. Water accumulation shall not be allowed. Personnel shall not work in standing water in an excavation without specific approval from the Competent Person. Pumps shall be used to remove water that enters the excavation and their operations shall be continuously monitored. If the excavation interferes with the natural drainage of surface water (streams or runoff), dikes or diversions shall be used to prevent surface water from entering the excavation.
h. Barricading, signal guards, stop logs or other warning systems shall be in place if mobile equipment will be used around the excavation.
   - Nothing shall be stockpiled within two feet of the edge of the excavation. Spoils (loose soil) must be laid back more than two feet from the edge.
i. Pedestrian and vehicle traffic shall be kept from the edge of the excavation at a distance to be adjusted to reflect the weight and frequency of the traffic.
j. Where employees or equipment are allowed to cross over and excavation, adequate walkways with guardrails and toe boards are required.
   - Materials for sheeting, shoring, or bracing the sidewalls shall be in good condition. Timbers shall be sound, free of large or loose knots and of adequate dimension.
k. Mechanical support systems shall be removed from the bottom first when the excavation is being backfilled.

5.2 SOIL CLASSIFICATION AND IDENTIFICATION

The Competent Person shall classify soils in the field based on the results of at least one visual and at least one manual analysis performed by the Competent Person.

a. *Visual Analysis* – visual analysis shall be conducted to determine qualitative information regarding the excavation site and the soil as follows:
   - Identify excavated soil and the surface area adjacent to the excavation, as well as soil in the sides of the excavation.
   - Estimate the range of particle sizes and the relative amounts of the particle sizes.
   - Soil that is primarily fine-grained material that remains in clumps when excavated is cohesive material.
   - Soil that is coarse-grained sand or gravel that breaks up easily and does not stay in clumps is granular material.
   - Crack-like openings indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured.
   - Small spalls are evidence of moving ground and are indicators of potentially hazardous situations.
     - Identify previously disturbed soils.

- Observe the opened side of the excavation to identify layered systems to determine if the layers slope toward the excavation. Estimate degree of slope of the layers.
- Examine area adjacent to and within the excavation for evidence of the following:
  - Existing utility and other underground structures.
  - Surface water, water seeping from the sides of the excavation or the location of the level of the water table.
  - Sources of vibration that may affect stability of the excavation face.

b. *Manual Analysis* – manual analysis shall be conducted to determine the quantitative properties of soil and to provide more information to classify soil properly:
- *Plasticity* - mold a moist sample of soil into a ball and attempt to roll into thread as thin as 1/8-inch diameter. Cohesive material can successfully be rolled into threads without crumbling and can be held on one end without tearing.
- *Dry Strength* – if the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine power, it is granular. If the soil is dry and falls into clumps that break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the soil breaks into clumps that do not break up into small clumps that can only be broken with difficulty and if there is no visual indication that the soil is fissured, the soil may be considered unfissured.
- *Thumb Penetration* – used to estimate the unconfined compressive strength of cohesive soils. The thumb can readily indent Type A soils, however, the thumb, only with very great effort, can penetrate them. Type C soils can be easily penetrated several inches by the thumb and can be molded by light finger pressure. Thumb penetration should be conducted on an undisturbed soil sample as soon as practicable after excavation to minimize the effects of exposure to drying influences. If the excavation is later exposed to wetting influences such as rain or flooding, the classification of the soil must be changed accordingly.
- *Other Strength Tests* – estimates of unconfined compressive strength of soils can be obtained by the use of a pocket penetrometer or by using a hand-operated shear vane.
- Drying Tests - used to differentiate among cohesive material with fissures, unfissured cohesive material and granular material. Dry a sample of soil that is one-inch thick and six-inches in diameter until it is thoroughly dry and make the following determinations:
  - If the sample develops cracks as it dries, significant fissures are indicated.
  - Samples that dry without cracking are to be broken by hand. If considerable force is necessary to break a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfirmed compressive strength should be determined.
  - If a sample breaks easily by hand, it is fissured cohesive material or a granular material. Pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, material is cohesive with fissures. If they pulverize easily into very small fragments, material is granular.

c. *Soil Classification* – each soil type encountered in excavation shall be classified per:
- *Rock* – presents the most stable excavation walls. No wall support is needed.
- *Type A Soil* – includes cohesive soils such as clay, silty clay, sandy clay, clay loam and in some cases, silty clay loam. Cemented soils such as hard pan are Type A soils. Soil is NOT Type A if it falls in any of the following categories:
  - Fissure soil.
  - Soil subject to vibration from heavy traffic, pile driving or similar effects.
  - Soil that is part of a sloped, layered system where the layers dip into the excavation on a slope of four to one (horizontal to vertical) or greater.
  - Soil subject to other factors requiring it to be classified as less stable material.
- *Type B Soil* – included cohesive soil and granular cohesionless soils including angular gravel (crushed rock), silt, silt loam, sandy loam and in some cases silty clay loam and sandy clay loam. Type B soil includes material that is part of a sloped, layers system where the layers dip into the excavation on a slope less than 4:1 but only if the material would otherwise be classified as Type B.
- *Type C Soil* – includes granular soils such as gravel and sand (alone or mixed), loamy sand, submerged soil or soil from which water is freely seeping as well as submerged rock that is unstable.

d. Maximum Slope by Soil Type - the following table presents the maximum slope by soil type allowed for the sidewalls of excavations less than twenty feet deep, based on the soil classification. If this degree is sloping is not possible, support systems must be used.

Note - sloping requirements may vary from state to state if the state has a state-run OSHA plan.

SOIL CLASSIFICATION	MAXIMUM ALLOWABLE SLOPE	
ROCK/STABLE ROCK	VERTICAL	90°
TYPE A SOIL	.75 : 1	53°
TYPE B SOIL	1 : 1	45°
TYPE C SOIL	1.5 : 1	34°

5.3 TRAINING

a. The Competent Person (for excavations) shall receive initial training in excavations, air monitoring, soil classifications, support systems and rescue teams.
b. All excavation entrants shall receive awareness training on excavation safety prior to entering any excavation.
c. Emergency rescue teams, whether in-house or external, shall be specifically trained in excavation rescue. The Competent Person, working in conjunction with the Safety Representative, shall determine the adequacy of the training of external Emergency Rescue Teams for responding to excavation emergencies. This training shall include:
   - Hazards of using equipment for recovery.
   - Maintenance of air supply to the trapped.
   - Continuance of water removal measures.
   - Red Cross Emergency First-Aid, or equivalent.
   - Cardiopulmonary Resuscitation (CPR).

5.4 RECORDS

a. When there has been an incident, records of the Competent Person's daily inspection notes shall be retained for the duration of the investigation and an additional three years thereafter.
b. When there has been no incident, the records shall be retained only until the excavation has been backfilled.

6.0 REFERENCES

a. ASTM D2488, Standard Recommended Practice for Description of Soils (Visual+Manual)
b. 29 CFR 1926 Subpart P, Excavations

7.0 ATTACHMENTS

a. Examples of Sloping, Benching and Shielding
b. Examples of Aluminum Hydraulic Shoring for Trenches
c. Alternatives to Timber Shoring
d. Attachment 25 – Daily Excavation Inspection Checklist

Examples of Sloping, Benching and Shielding

Illustration 6

BENCHING & SLOPING FOR EXCAVATIONS MADE IN TYPE "A" SOIL

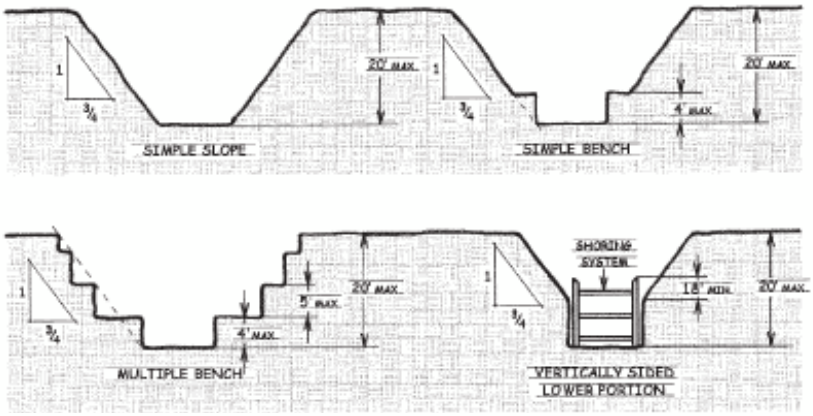


Illustration 7

BENCHING & SLOPING FOR EXCAVATIONS MADE IN TYPE "B" SOIL

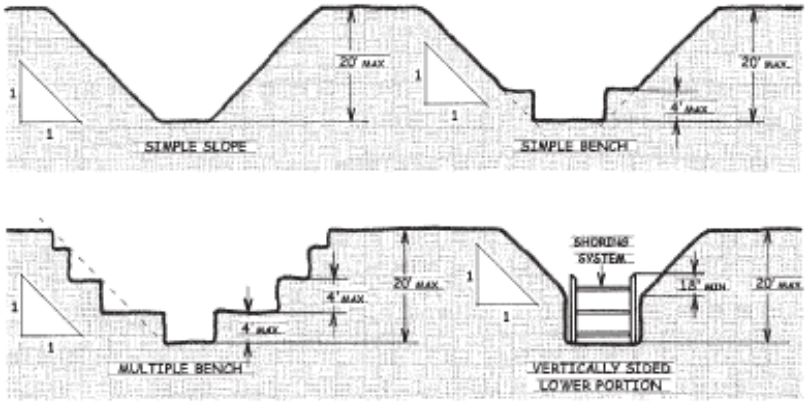
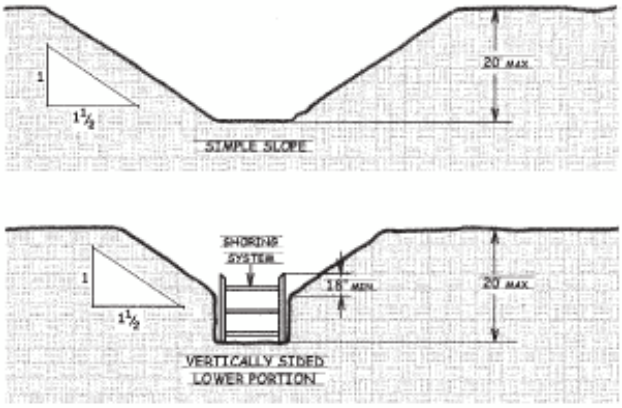
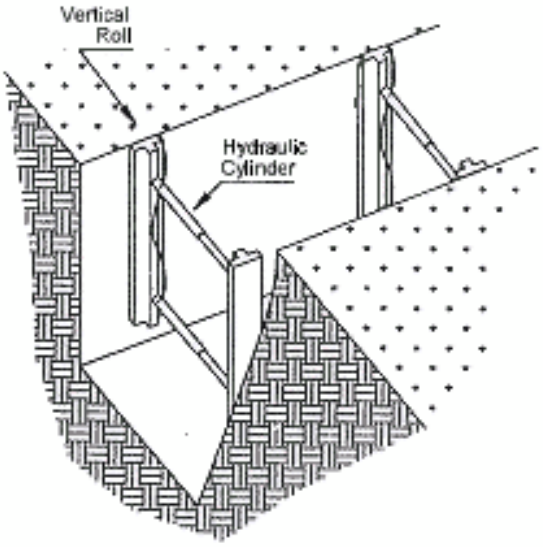


Illustration 8

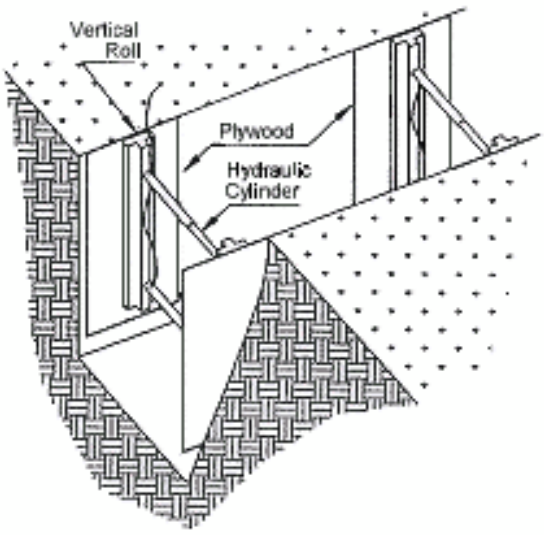
BENCHING & SLOPING FOR EXCAVATIONS MADE IN TYPE "C" SOIL



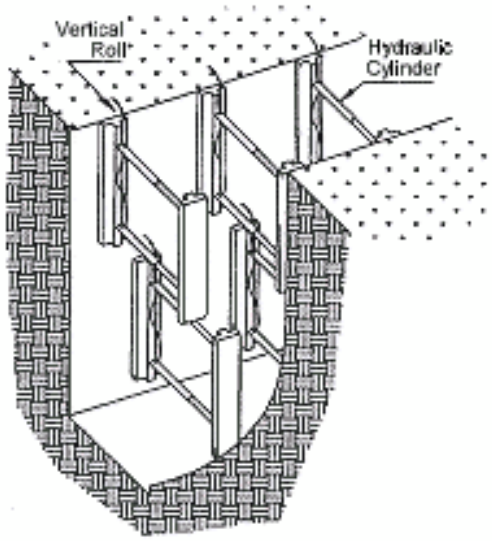
Examples of Aluminum Hydraulic Shoring for Trenches



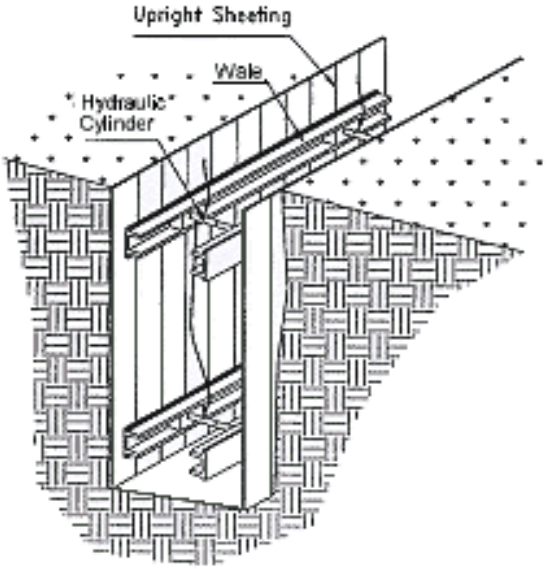
Vertical Aluminum Hydraulic Shoring
(Spot Bracing)



Vertical Aluminum Hydraulic Shoring
(With Plywood)



Vertical Aluminum Hydraulic Shoring
(Stacked)



Aluminum Hydraulic Shoring Waler System
(Typical)

Alternatives to Timber Shoring

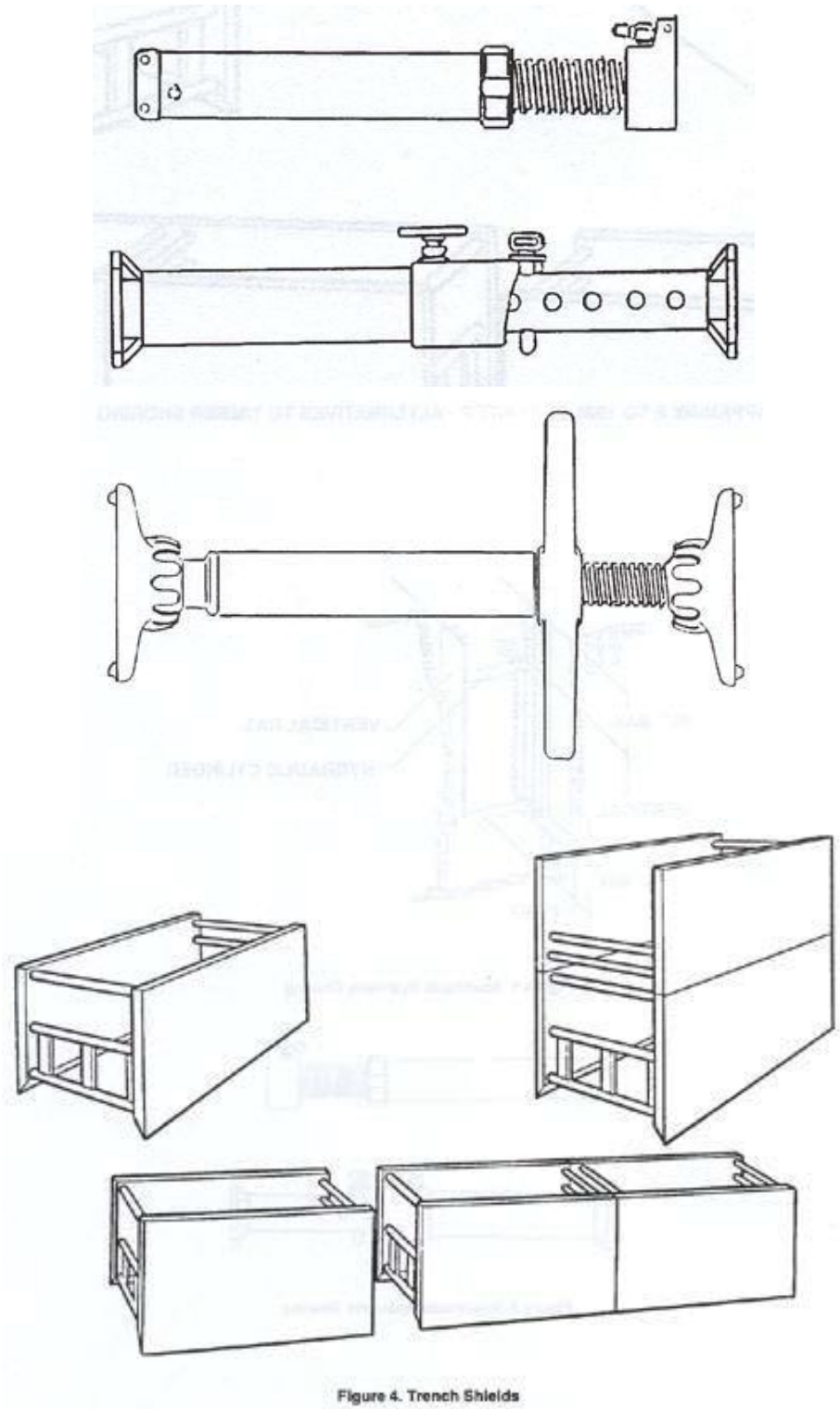


Figure 4. Trench Shields

Fall Protection

1.0 PURPOSE

a. The purpose of this section is to establish the requirements to be followed to safeguard employees from injuries due to falls, including falls over water.
b. This guideline is intended to prevent potentially serious fall accident involving employees.
c. This guideline outlines terminology, responsibilities, and reviews basic principles to ensure safety and efficiency.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Fall protection systems or practices, such as guardrails, fall restraint systems, personal fall arrest systems, warning lines or safety monitors are required under the following conditions:
   - When a fall exposure hazards of six feet or more exists
   - When a fall exposure hazards of less than six feet exists under particularly hazardous circumstances such as work over objects or equipment that present physical hazards.
   - The following are common fall exposure hazards:
     - Areas of metal deck during installation and when floor openings are made to accommodate elevators, ladder openings and mechanical/ventilation shafts.
     - Unprotected sides and edges such as on roofs, ramps, and platforms at elevations greater than six feet.
     - Leading edges created during the installation of floor, roof, decking or formwork.
     - Excavations six feet deep or deeper.
     - Wall openings where a fall exposure of six feet or more exist and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface.
     - Skylights located on roofs or where a fall potential of six feet or greater exists. Work on articulating booms lifts (man-lifts, JLG's) at heights greater than six feet.
b. All fall protection equipment adheres to applicable ANSI, ASTM, or OSHA requirements.
c. Personal fall arrest systems are generally not required when working on the following structures or equipment (always check with supervisor or safety manager):
   - Permanent platforms enclosed by proper handrails.
   - Complete and inspected scaffolding equipped with proper decking and guardrails.
   - Fixed cage ladders.
   - Portable ladders that are properly placed and secured.
d. The systems and practices listed below are approved for use in protecting employees from fall exposure hazards:
   - Personal fall arrest systems
   - Warning line systems
   - Safety monitoring systems
   - Guardrail systems
   - Covers for holes
e. Site conditions and configurations may require the use of multiple systems and practices to protect employees from fall exposure hazards.
f. Fall protection systems and practices may be used in tandem to provide additional levels of fall protection. *For example, a warning line system in conjunction with a safety monitor may be used on rooftops during equipment setting operations.*

4.0 DEFINITIONS

a. Anchorage – a secure point of attachment for lifelines, lanyards, or shock absorber devices. The anchorage shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached.
b. Body Harness – straps secured about the employee that will distribute the fall stopping force over the body. The body harness has a means for attaching it to other components of a personal fall arrest system.
c. Connector – a device which is used to connect part of the personal arrest system, positioning or restraint systems together. It may be an independent component such as a carabiner or it may be an integral component of the body harness (D-Rings) or lanyards (snap-hooks).
d. D-Ring – a connector located on the back of the body harness which is designed to be the connection point for lanyards and lifelines.

e. Leading Edge – the edge of a floor, roof or formwork for a floor or other walking/working surface which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed.
f. Lanyard – a flexible line of rope, wire rope or strap that has a connector at each end for connecting a body harness to a shock absorbing device, lifeline, or anchorage.
g. Lifeline – a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline) or for connection to anchorage at both ends to stretch horizontally (horizontal lifeline).
h. Personal Fall Arrest System – a system used to stop an employee's fall consisting of an anchorage, connectors and a body harness and may include a lanyard, a shock absorbing device, a lifeline, or a suitable combination of any/all of the above items.
i. Personal Floatation Device (PFD) – a life vest or life preserver that is capable of supporting a person and keeping them afloat in water.
j. Rope Grab – a deceleration device that travels on a lifeline and automatically, by friction, engages the lifeline and locks so as to arrest the fall of an employee.
k. Self-Retracting Lifeline/Lanyard – a deceleration device containing a drum-wound line, which can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.
l. Shock Absorbing Device – any mechanism such as a rope grab, rip-stitch lanyard, specially woven lanyard, tearing or deforming lanyard and others, which serves to dissipate energy during a fall. These mechanisms will also arrest and limit the energy imposed on the employees as they are stopped.
m. Snaphook – a connector comprised of a hook-shaped member with a normally closed keeper or similar arrangement that may be opened to permit the hook to receive an object, and when released, automatically closes to retain the object.
n. 100% Tie-Off Lanyard – two-legged lanyard with an integral shock absorber which allows workers to be tied- off to one anchorage point at all times even while moving from one location to another. Each leg of the lanyard is terminated by a connector and a center connector (usually a snap hook) attaches to a back D-ring of the harness.

5.0 RESPONSIBILITY

5.1 SAFETY DIRECTOR/SITE SAFETY REPRESENTATIVE

The Safety Director/Site Safety Representative shall monitor the use of this guideline to assure compliance and understanding by employees. The Safety Director/Site Safety Representative shall also provide guidance in the selection and use of fall protection systems. When requested, the Safety Director/Site Safety Representative shall assist the Project Manager in their completion of the Fall Protection Assessment Checklist. The Safety Director/Site Safety Representative shall develop the site-specific plan.

5.2 PROJECT MANAGER

The Project Manager shall ensure that a Fall Protection Assessment Checklist is completed prior to the start of their project. The Project Manager shall distribute copies of the checklist to all foreman and trade supervisors for review and use in the field.

5.3 FOREMAN

Foreman shall ensure that employees under their supervision/direction are following safe work practices as outlined on this guideline and the Fall Protection Assessment Checklist.

5.4 EMPLOYEES

Employees shall exercise constant awareness of and respect for fall hazards and shall use fall protection devices when appropriate. Employees shall inspect fall protection equipment before every use and remove defective/damaged equipment from use.

6.0 PROCEDURE

6.1 FALL PROTECTION ASSESSMENT

a. The Project Manager shall ensure that a fall protection assessment is completed prior to the start of the project. Completion of the checklist during or prior to the pre-construction/kick-off meeting is preferred.
b. The Fall Protection Assessment is completed to identify potential fall exposure hazards and corresponding fall protection systems and practices that will be utilized to protect employees for identified fall exposure hazards.
c. A Fall Protection Assessment Checklist form will be used to document the fall protection assessment. See Attachment 26 – Fall Protection Assessment Checklist
d. The completed Fall Protection Assessment Checklist will be reviewed by all employees.

6.2 PERSONAL FALL PROTECTION EQUIPMENT AND USE

Personal fall protection equipment consists of two systems; fall arrest and fall restraint. Full-body harnesses are primary component for both systems. Self-Retracting Lifelines (SRLs) are used in fall arrest systems. Lanyards are used in fall restraint systems.

a. Anchorage
   - Anchorage used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached.
   - Guardrail systems to include wire rope guardrails shall not be used as an anchorage for fall protection systems.

b. Body Harness
   - Adjust the body harness to fit the chest and under the arms and legs snugly before each use.
   - Wear only harnesses that fit properly.
   - Belts used to secure the harness to your legs must fit snugly and pass through both sides of the buckle.
   - Position the D-ring in the center of your back, between the shoulder blades. The back D-ring is the attachment point for the lanyard.

c. Lanyard
   - Attach the lanyard as high above your head as possible as to reduce fall distance.
   - Never tie a knot in a lanyard. This can reduce its strength by 50%.
   - Use only approved lanyards. Do not use substitutes for lanyards (i.e. wire or rope)
   - Lanyards shall be attached above the point of operation and moved during work as necessary to ensure that the attachment point will not allow the harness wearer to reach a lower level before stopping the fall.
   - Protect lanyards from sharp edges to reduce possibility of ripping or tearing.
   - Lanyards shall be no longer than six feet.
   - Damaged lanyards should be removed from service immediately.

d. Rope Grabs
   - Rope grabs shall be used in accordance with the manufacturer's recommendations.
   - Environmental conditions such as rain, snow or ice may affect the operation of rope grabs. Consult the manufacturer's instructions when these conditions exist.
   - Employees shall test the rope grab by moving it along the lifeline to ensure that it is locking properly. This test shall be completed prior to attaching the body harness to the rope grab.

e. Self-Retracting Lifelines
   - Self-retracting lifelines, which automatically limit free fall distance to two feet or less, shall be capable of sustaining a minimum tensile load of 3000 pounds, applied to the device with the lifeline or lanyards in the fully extended position.
   - Self-retracting lifelines shall be installed under the supervision of a qualified person, as part of a complete personal fall arrest system.
   - Self-retracting lifelines shall be installed so that the reel and housing are positioned perpendicular to the ground or lower level.
   - Oil or any other lubricants shall never be applied to self-retracting lifelines.

f. Snaphooks
   - Snaphooks must be equipped with a double-lock mechanism that requires two movements to open the snaphook.
   - When released, the snaphook must return to the closed position.
   - Never connect two snaphooks into one D-ring or connect snaphooks together.
   - Snaphooks should be positioned vertically when attached to an anchorage point.
   - The strength of a snaphook is greatly reduced when positioned horizontally or perpendicular to the lanyard.
   - Never connect snaphooks directly to the body harness webbing, rope or wire rope.
   - Never connect snaphooks to a D-Ring to which another snaphook or other connector is attached.

g. Horizontal and Vertical lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system.
   - Lifelines shall be protected against cuts or abrasions and maintain a safety factor of at least two.
   - Vertical lifelines shall have a minimum breaking strength of 5,000 pounds.
   - Vertical lifelines to which rope grabs will be attached shall be of synthetic material and be between 5/8 and 3/4 inches in diameter.

6.3 WARNING LINE SYSTEMS

a. Warning line systems and their use shall comply with the following requirements:
   - The warning line shall be erected around all sides of the roof area.
   - When mechanical equipment is not being used, the warning line shall be erected not less than six feet from the roof edge.
   - When mechanical equipment (forklift, pallet jacks, etc.) is being used, the warning line shall be erected not less than six feet from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than ten feet from the roof edge perpendicular to the direction of mechanical equipment operation.

- Points of access, material handling areas, storage areas and hoisting/landing areas shall be connected to the work area by an access path formed by two warning lines.
- When the part to a point of access is not in use, a rope, wire, chain or other similar barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the part shall be offset such that a person cannot walk directly into the work area.

b. Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:
- The rope, wire or chain shall be flagged at not more than six-foot intervals with high- visibility material.
- The rope, wire or chain shall be rigged and supported in such a way that its lowest point (including sag) is not less than 34 inches from the walking/working surface and its highest point is not more than 39 inches for the walking/working surface.
- After being erected, with the rope, wire or chain attached, stanchions shall be able to resist, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof or platform edge.
- The rope, wire or chain shall have a minimum tensile strength of 500 pounds.
- The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

c. No employee shall be allowed in the area between a roof edge and a warning line unless the employee is protected from fall exposure by other approved fall protection system.

6.4 GUARDRAIL SYSTEMS

a. Guardrail systems and their use shall comply with the following provisions:
- Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches plus or minus 3 inches above the walking/working level. When conditions warrant, the height of the top edge may exceed the 45-inch height, provided the guardrail system meets all other criteria of this section.
- Midrails, when used, shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.
- Intermediate members (such as balusters), when used between posts, shall be not more than 19 inches apart.
- Other structural members (such as additional midrails and architectural panels) shall be installed such that there are no openings in the guardrail system that are more than 19 inches wide.
- Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds applied within 2 inches of the top edge, in any outward or downward direction, at any point along the top edge.
- Midrails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the midrail or other member.
- Guardrail systems shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
- The ends of all top rails and midrails shall not overhand the terminal posts, except where such overhang does not constitute a projection hazard.
- Steel banding and plastic banding shall not be used as top rails or midrails.
- Top rails and midrails shall be at least one-quarter inch nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.

b. When guardrail systems are used at hoisting areas, a chain, gate, or removable guardrail section shall be placed across the access opening between guardrail sections when hoisting operations are not taking place.

c. When guardrail systems are used at holes, they shall be erected on all unprotected sides or edges of the hole.

d. When guardrail systems are used around holes used for the passage of materials, the hole shall have not more than two sides provided with removable guardrail sections to allow the passage of materials. When the hole is not in use, it shall be closed over with a cover, or a guardrail system shall be provided along all unprotected sides or edges.

e. When guardrail systems are used around holes which are used as points of access (such as ladderways), they shall be provided with a gate, or be so offset that a person cannot walk directly into the hole.

6.5 FLOOR OPENINGS

a. A floor opening is an opening in any floor, roof platform, pavement, or yard that measures at least 12 inches in its smallest dimension and through which a person can fall.
- Stairways
- Hatchways

- Large manholes/vaults
- Skylight openings

b. Floor openings shall be protected at all times by one of the following methods:
   - Guardrail system (top rail, mid rail, toe board). See 6.4 GUARDRAIL SYSTEMS of this section
   - Opening covers must be able to withstand shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time. Opening cover must be clearly marked with the word “HOLE” or “COVER” and be securely fastened to the floor surface.
   - When cover or guardrail must be removed to perform the task, the following actions must be taken:
     - For a guardrail system - guardrails must be relocated to allow access to floor opening.
     - For an opening cover system - prior to removal of the cover, guardrails or other barricades must be installed to protect opening while cover is removed.
     - In either case, employee occupying the space inside the guardrail system must have fall protection in the form of body harness and shock-absorbing lanyard, attached to a proper anchor point.
     - In either case, floor area below opening shall be protected and marked indicating to other workers that work is taking place above. Hazards from falling objects must be considered at all times when an opening is exposed to this risk.

6.6 FLOOR HOLES

a. A floor hole is any opening in a floor, roof, platform, pavement, or yard that measures at least 1 inch but less than 12 inches at its smallest dimension and through which materials and tools can fall.
   - Cored holes for pipes or conduit
   - Cable belt holes
   - Slotted openings

b. Floor holes shall be protected by means of a floor hole cover. A job-built cover or manufactured cover may be used.
   - Covers must be fastened or otherwise installed to prevent displacement and expose the hole.
   - Covers must be able to withstand twice the expected load from people, tools, equipment, etc.
   - Covers must be clearly marked “HOLE” or “COVER”
   - When covers are removed to perform the work, protection must be provided for lower floors for hazards associated with dropped/falling objects.
   - Barricade the area to which objects could fall and prohibit entry into this area.

6.7 SAFETY MONITORING SYSTEMS

a. Safety monitoring systems are only permitted when absolutely no other means of fall protection is feasible.
b. The safety monitor shall be a competent person designated by the Supervisor and approved by the Safety Director.
c. The safety monitor shall comply with the following requirements:
   - The safety monitor shall be competent to recognize fall hazards.
   - The safety monitor shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner.
   - The safety monitor shall be on the same walking/working surface and within visual sighting distance of the employee(s) being monitored.
   - The safety monitor shall be close enough to communicate orally with employee(s).
   - The safety monitor shall not have other responsibilities, which could take the monitor’s attention from the safety monitoring function.

6.8 FALLING OBJECT PROTECTION

When the potential exists for employees to be exposed to falling objects, employees shall wear hardhats and one of the following measures shall be implemented:
- Toe boards, screens and guardrail systems will be installed to prevent objects from falling from higher levels, OR
- Erect canopies that are strong enough to prevent collapse and penetration by objects that may fall from a higher level, OR

6.9 WORK OVER WATER

The potential for drowning is an additional hazard to be considered when working on a water intake, water discharge structures, dock facilities or any other location over water. The following precautions shall be taken:
- A PFD capable of lifting the mouth of an exhausted or unconscious person out of the water shall be provided and worn by each person while working on docks, barges, watercraft, or similar facilities.
- An observer shall be assigned whenever work is being done over water. The observer shall maintain communication with workers at all times.

- Adequate illumination of the work area shall be provided at all times.

6.10 RESCUE CONSIDERATIONS

Prior to the start of each project, the Watertap Inc Project Manager shall determine how employees will be rescued in the event of a fall or injury. In the event of a fall or injury, prompt rescue of employee shall be performed. The availability of rescue personnel, ladders or other rescue equipment shall be evaluated. Watertap Inc may utilize rescue plans established by the Owner after coordinating such use. The method to be used to rescue employees shall be noted on the Fall Protection Assessment Checklist.

6.11 INSPECTIONS

a. Warning lines and guardrails shall be inspected at the beginning and end of each shift, and maintained throughout the shift.
   - Any missing or damaged (broken, sagging, etc.) sections must be replaced immediately.
b. Covers for floor holes and openings shall be inspected at the beginning and end of each shift, and maintained throughout the shift.
   - Any missing or damaged (broken, unsecured, etc.) covers must be replaced immediately.
c. Body harnesses shall be inspected before each use. The body harness shall be removed from service if any defects listed below are present.
   - Cracked, dry or rotten leather.
   - Nylon or cords that have worn thin.
   - Cuts or worn places deep enough to weaken the strap or belt.
   - Broken stitches at buckles, D-rings or snaps.
   - A snap with weak springs behind the tongue or defective tongues that have been bent or sprung.
   - Loose tongues in buckles.
   - Cracked, bent or heavily worn buckles, D-rings or snaps.
   - Other wear, damage or defect that could affect the protection afforded by the assembly.
d. Self-retracting lifelines shall be inspected prior to being installed and used for fall protection. The self-retracting lifeline shall be removed from service and returned to an authorized service center for repair if any of the defects below are present:
   - Loose or missing bolts and bent or damaged parts.
   - Distortion, cracks, or other damage to housing.
   - The lifeline will not pull out and retract fully. Approximately ¼ of the lifeline length should be pulled from the housing and then released.
   - The locking mechanism does not lock when the lifeline is sharply jerked. There should be no slipping.
   - Cuts, abrasions or breaks on the wire rope.
   - Broken or cracked ferrules.
   - Bent, damaged or broken snaphook or self-locking mechanism.
   - The self-retracting lifeline has been subjected to impact loading from a fall or misuse.
   - Additionally, each self-retracting lifeline shall be inspected and serviced according to the manufacturer's instructions.

6.12 TRAINING

a. All employees required to work at elevations shall be trained in the recognition or unsafe practices or working conditions that could lead to a fall.
b. Workers shall be instructed as to the inspection, function, use and operation of body harness systems and other fall protection to be used including how to perform the work requiring body harnesses and how to adjust body harnesses to fit properly.
c. Employee training shall also include training in state or federal fall protection standards as they apply to the employee's work and exposure to fall hazards.
d. Retraining of an employee shall be conducted when:
   - Lack or improper use of fall protection equipment is observed
   - Insufficient skill of understanding of fall protection equipment is demonstrated
   - An employee is found to be noncompliant with the fall protection policy
   - A change in the workplace occurs and/or new, or unfamiliar, task is assigned

6.13 RECORDS

a. Watertap Inc shall prepare a certification record of training. The certification record shall contain the name of the employee trained, the dates of training and the signature of the person that administered the training.
b. This certification shall be retained for the duration of the employee's employment.

7.0 REFERENCES

a. ANSI Standard A10.14, Standards for Construction and Demolition Operators - Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition Use.
b. 29 CFR 1926.104 - Safety Belts, Lifelines and Lanyards
c. 29 CFR 1926.106, Working Over or Near Water
d. 29 CFR 1926 Subpart M - Fall Protecti0on

8.0 ATTACHMENTS

a. Attachment 25 – Fall Protection Assessment Checklist
b. Attachment 26 – Fall Protection Equipment Inspection Checklist: Harness
c. Attachment 27 – Fall Protection Equipment Inspection Checklist: Lanyard/Lifeline

Fire Prevention and Protection

1.0 PURPOSE

a. The purpose of this section is to establish the requirements to be followed for providing employees with the knowledge, skills, and training to prevent fires and provide immediate response in controlling incipient fires with portable fire extinguishers.
b. This section is intended to prevent potentially serious incidents involving incipient fires by providing training in the proper fire prevention and protection including the use of portable fire extinguishers.
c. This section outlines terminology, responsibilities, and reviews basic principles for the development of procedures to ensure safety and efficiency.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 DEFINITIONS

a. Class A Fire – a fire involving ordinary combustible materials such as wood, plastic, cloth, and paper.
b. Class B Fire – a fire involving combustible gases, liquids, and grease.
c. Class C Fire – a fire involving energized electrical equipment requiring nonconductive extinguishing agents.
d. Combustible Gas, Liquid or Grease – materials having a flashpoint at or above 100°F
e. Flammable Gas, Liquid or Grease – materials having a flashpoint below 100°
f. Incipient Stage Fire – a fire that is in the initial stage and can be controlled or extinguished by portable fire extinguishers without the need for protective clothing or breath apparatus.
g. Inspection – a visual check of fire protection systems and equipment to ensure that they are in place, charged and ready for use in the event of a fire.
h. Maintenance – checking internal fittings, devices and agent supplies of fire protection equipment and systems to assure that they will perform as expected in the event of a fire.
i. Maximum Travel Distance (MTD) – the longest distance allowed for a person to travel from a potential fire hazard to the fire extinguisher protecting the area.

4.0 PROCEDURE

4.1 HOUSEKEEPING PRACTICES

a. Keep storage and working areas free of trash.
b. Place oily rags in covered containers and dispose of daily.
c. Do not use gasoline or other flammable solvents/finish to clean floors.
d. Use noncombustible oil-absorptive materials for sweeping floors consisting of sawdust or some other combustible material treated with oil.
e. Dispose of materials in noncombustible containers that are emptied daily.
f. Remove accumulation of combustible dust.
g. Materials shall not be stored in stairwells.
h. Periodically remove overspray residue from walls, floors and ceilings of spray booths and ventilation ducts.
i. Remove contaminated spray booth filters from the building as soon as replaced or keep immersed in water until disposed.
j. Clean up and spill of flammable materials immediately.
k. Check daily for any discarded lumber, broken pallets or pieces of material stored on site and remove properly.
l. Immediately reposition any pile of material that falls into an aisle or clear space.
m. Wooden pallets will not be stacked over six feet in height. If feasible, extra pallets will be stored outside or in separate buildings to reduce fire risk.
n. Piles of combustible materials shall be stored away from buildings and located apart from each other sufficiently to allow firefighting efforts to control and existing fire.

4.2 MATERIAL STORAGE AND HANDLING

a. The storage or material shall be arranged such that adequate clearance is maintained away from heating surfaces, air ducts, heaters, flue pipes and light fixtures.
b. All storage containers or areas shall prominently display signs to identify the material stored within.
c. Storage of chemicals shall be separated from other materials in storage, from handling operations and from incompatible materials.
d. All individual containers shall be identified as to their contents.

e. Only containers designed, constructed, and tested in accordance with the US Department of Transportation specifications and regulations are used for storage of compressed or liquefied gases.
f. Compressed gas storage rooms will be areas reserved exclusively for that purpose with good ventilations and at least a one-hour fire rating.
g. Gas cylinders shall never be used without pressure regulators.
h. Bulk quantities of flammable liquids shall be stored outdoors and away from buildings.
i. Flammable liquids shall be stored in and dispensed from approved safety containers equipped with vapor-tight, self-closing caps, screens or covers.
j. Flammable liquids shall be stored away from possible ignition sources.
k. When dangerous liquids are being handled, a warning sign will be posted near the operation notifying other employees and giving warning that open flames are hazardous and are to be kept away.
l. The storage and usage areas will include fire-resistive separations and separation of incompatible materials and the separation of flammable materials from other materials.

4.3 WORK PRACTICES

a. Do not refuel gasoline powered equipment in a confined space, especially in the presence of equipment such as furnaces or water heaters.
b. Do not refuel gasoline-powered equipment while it is hot.
c. Follow proper storage and handling procedures.
d. Ensure combustible materials are present only in areas and in quantities required for the work operation.
e. Change clothing that has become contaminated with flammable liquids before continuing with work.
f. Flammable liquids shall only be used in areas having adequate and, if feasible, positive ventilation. If the liquid is highly hazardous, the liquid shall only be used in areas with local exhaust ventilation.
g. Flammable liquids shall never be transferred from one container to another by applying air pressure to the original container. Pressurizing such containers may cause them to rupture, creating a serious flammable liquid spill.
h. Post “No Smoking” signage near storage areas.
i. Report any hazardous condition, such as old/faulty wiring, worn insulation and broken electrical equipment to the supervisor.
j. Keep motors clean and in good working order.
k. Do not overload electrical outlets.
l. Ensure all equipment is turned off at the completion of the work shift.
m. Maintain the correct type of fire extinguisher available for use.
n. Ensure that all passageways and fire doors are unobstructed.
o. Stairwell doors shall never be propped open.
p. Use weed killers that are not toxic and do not pose a fire hazard.

4.4 SPRINKLERS

a. Do not allow materials to block automatic sprinkler systems or to be piled around fire extinguisher locations.
b. To obtain the proper distribution of water, a minimum of 18 inches of clear space must be maintained below sprinkler deflectors.
c. If there are no sprinklers, a three-foot clearance between piled material and the ceiling must be maintained to permit use of hose streams.
   • These distances must be doubled when stock is piled higher than 15 feet.

4.5 FIRE EXTINGUISHERS

a. Approved portable fire extinguishers shall be mounted, located, and identified so that they are readily accessible.
b. Portable fire extinguishers using carbon tetrachloride or chlorobromomethane extinguishing agents shall be removed from service and replaced with an approved model extinguisher.
c. Use acceptable dry chemicals. Do not mix chemicals (especially Foray) with any bicarbonate-based or B:C dry chemical.
d. Portable fire extinguishers shall be maintained in a fully charged and operable condition and shall be kept in their designated places at all times. If removed for repair, testing or use, the extinguisher shall be replaced immediately with one of the reserve units of equal or greater capacity.
e. Portable fire extinguishers shall be selected based on the classes of anticipated workplace fires and on the size and degree of expected hazard.
f. Portable fire extinguishers shall be distributed based on the classes of anticipated workplace fires. Additional fire extinguishers are recommended.
g. Portable fire extinguisher type listed in table on next page.

h. Inspections: The Safety Director/Representative shall visually inspect all fire extinguishers monthly and document the inspection to determine that all portable fire extinguishers meet the following criteria:
   - Extinguisher shall be in its designated place and shall not have been discharged.
   - If the extinguisher is pressurized, the gauge shall reflect that the unit is charged in the correct range.
   - If the extinguisher is the dry powder type, ensure that the shift of the powder can be detected when the unit is inverted.
   - If the extinguisher is a funnel-nozzle equipped unit, ensure the nozzle is clear.
   - The extinguisher should not have any apparent physical damage or corrosion.
   - All fire extinguishers that do not pass the inspection will be removed and replaced immediately.

i. Maintenance and Testing: only trained, qualified persons, contractors of the manufacturer's representative shall maintain or test fire extinguishers.

j. Mounting Fire Extinguishers: Fire extinguishers shall be located along normal paths of travel. Access to portable fire extinguishers shall not be obstructed. The following shall be considered when mounting fire extinguishers:
   - Fire extinguishers located outdoors shall be protected from the elements.
   - Identify the location of fire extinguishers using the following methods:
   - Paint a 12-inch red stripe on the column on which the fire extinguisher is mounted.
   - Paint a 12-inch red square on the wall above a mounted fire extinguisher.
   - Install a metal "FIRE EXTINGUISHER" sign perpendicular to the wall or column if the painted marking is not visible from 25 feet.
   - Install a "FIRE EXTINGUISHER" sign on any housing that protects a wheeled fire extinguisher.
   - Utilize fabricated fire extinguisher stands.

k. Training: All employees shall be informed about the uses and limitations of portable fire extinguisher. All employees shall receive prior to initial assignment, and annual classroom, training to familiarize them with the general principles of fire extinguisher use and the hazards involved with fire extinguishers every other year. Qualified instructors may include manufacturer's representatives or externally trained fire fighters.

Hazard	Description	Extinguisher Type and Contents	Maximum Travel Distance	Maximum Floor Area
Class "A" Fire	Combustible Material	Loaded stream, Multipurpose dry chemical, Pressure-operated water, Water pump tanks, Water mist, Halon 1211	75 ft	11,250 sq. ft
Class "B" Fire	Flammable Liquids, Gas, or Grease	Carbon dioxide, Dry chemical, Foam, Loaded stream, Multipurpose dry chemical, Halon 1211	50 ft	5,000 sq. ft
Class "C" Fire	Electrical Equipment	Carbon dioxide with plastic horn only, Dry chemical, Multipurpose dry chemical, Water mist, Halon 1211	In accordance with the anticipated Class "A" or Class "B" fire hazard	
Class "D' Fire	Combustible Metal	Extinguishing agent listed for use on a specific combustible metal hazard	In accordance with NFPA 10	

4.6 RECORDS

a. Equipment Inspections:
   - Records of the monthly inspection shall be retained for the most recent year. The date of the monthly inspection and the initials of the inspector shall be recorded on a metal or fabric tag attached to the fire extinguisher.
   - Records of the annual maintenance, specifying the date, shall be retained for one year plus the current year.

b. Fire Extinguisher Use Training Records:
   - Shall be retained for one year plus the current year.

c. Instructor Training Records:

- Qualification records of fire extinguisher training instructors shall be retained for one year plus current year.

d. Maintenance Training Documentation:
   - Records of personnel qualified to perform maintenance shall be retained 13 years.

5.0 REFERENCES

e. International Fire Service Training Association
f. International Society of Fire Service
g. National Fire Protection Association (NFPA)
h. National Institute of Occupational Safety and Health (NIOSH)
i. US Fire Administration
j. 29 CFR 1910.38, Employee Emergency Action Plans and Fire Prevention
k. 29 CFR 1910 Subpart L, Fire Protection (see subsection 1910.156, Fire Brigades)
l. 29 CFR 1926 Subpart K, Fire Protection and Prevention
m. MIOSHA 408.41800, Part 18. Fire Protection and Prevention

6.0 ATTACHMENT

a. Attachment 28 – Fire Extinguisher Inspection Checklist

Hot Work
Welding, Cutting, Grinding, and Burning

1.0 PURPOSE

The purpose of this section is to establish the requirements to minimize potential hazards created by sources of ignition while working in areas where the potential for fire or explosion exist.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 DEFINITIONS

a. Hot Work – any work or the operation of any equipment that may create a source of ignition, such as, but not limited to:
   - Electric or gas welding
   - Gas cutting torch, gas torch soldering or brazing
   - High speed grinding with abrasive disc (electric or pneumatic)
   - Sandblasting on tanks or equipment that have a vapor space and are in service or have not been cleared of flammable or combustible materials.
   - Any use of open flame

   Note: if you are unsure if the work you are doing is "hot work," contact your supervisor or safety representative to help make a determination.

b. Fire Watch – the person(s) required to stand by and watch for and prevent situations that might develop into fires or other hazardous conditions during the course of, and at least 30 minutes after, any hot work activities have been completed. The fire watch is also required to attempt to extinguish fires that are in their incipient stages. The fire watch shall be trained in the use of fire extinguishing equipment.

4.0 PROCEDURES

4.1 HOT WORK PERMITS

a. A hot work permit that authorizes hot work operations must be completed prior to starting any hot work operations.
b. The permit must be specific to the scope of work being authorized and precautions to be taken to prevent fire and/or explosion.
c. The permit must be posted in the work area for the duration of the task or until the end of the shift, whichever comes first.

4.2 PRE-OPERATION PRECAUTIONS

a. A gas test must be performed on the equipment and area that will be exposed to the hot work to determine explosive gases and/or vapors are not present.
   - If the potential of hazardous fumes, gases, or dust exist then proper measures shall be implemented. Respiratory systems, ventilation, PPE, etc.
b. At a minimum, one class ABC, 20-pound dry chemical fire extinguisher, sealed, fully charged, and inspected must be present at the site where hot work will occur and readily available.
c. At any time, if equipment is found to have defects, equipment operator must report the defect and discontinue use until equipment has been repaired or replaced.
d. Flammable and/or combustible materials such as wood, cloth and paper must be removed from the work area or be protected.
   - If combustible materials cannot be removed from the area, shields or blankets shall be in place prior to hot work operations.
e. All drains, trenches, vents, and sewer openings in the area of the hot work will be covered with fire retardant material to prevent sparks/slag from entering them and to prevent the escape of explosive gases or vapors from the opening.
f. Equipment exposed to hot work must be properly isolated and cleared.
g. Spark containment "firebox" must be installed as needed or required.
h. Upon inspection of work area, if conditions are identified as unsafe, welding and cutting shall not be performed.

4.3 FIRE WATCH

a. A fire watch must be present at all welding operations to monitor slag, sparks, and other fire hazards of the task.
b. A fire watch shall remain at the location of hot work activities for one hour after hot work activities are finished, including breaks, lunch, etc.

4.4 ARC WELDING SAFETY

Arc welding safety rules consist of the following:
- Make sure welding equipment is installed properly and grounded and is in good working condition.
- Always wear proper eye protection when welding or cutting.
- Always wear protective clothing suitable for welding.

- Keep your work area clean and free of hazards. Make sure that no flammable, volatile or explosive materials are in or near the work area.
- Handle all compressed gas cylinders with extreme care. Replace protective caps when the cylinder is not in use.
- Make sure that compressed gas cylinders are secured to the equipment carriage, wall, or other structural supports.
- When compressed gas cylinders are empty, close the valve, install the cap, and return to the correct bottle storage area.
- Do not weld in confined spaces without special precautions and/or supervisor's authorization.
- Do not weld on containers that have held combustibles without special precautions and/or supervisor's authorization.
- Use mechanical exhaust at the point of welding when welding lead, cadmium, chromium, manganese, brass, bronze, zinc, or galvanized metals.
- Make sure all electrical connections are tight and insulated. Do not use cables with frayed, cracked, or bare sports in the insulation.
- When the electrode holder or welding torch is not in use, hang it on brackets provided. Never let it touch a compressed gas cylinder.
- Dispose of electrode holder and wire stubs in proper container since stubs and rods on the floor are a safety hazard.
- Use weld curtains to shield others from the light rays produced by your arc.
- When using water-cooled equipment, check for water leaks.
- Make sure all compressed gas connections are tight and check for leaks. Do not use hoses that are frayed or cracked.
- Keep you leads orderly and out of walkways. Suspend them whenever possible.
- Do not weld if your leads or machine is in or near water.
- Make sure a portable fire extinguisher is nearby.
- Once you remove your welding helmet, put on safety glasses.

4.5 OXY-FUEL CUTTING AND WELDING SAFETY

Oxy-fuel cutting, and welding safety rules consist of the following:

- Make sure that all gas welding equipment is installed properly and is in good working condition. Make sure that all connections are tight before lighting the torch. Do not use the flame to inspect for tight joints. Use a soap solution to detect leaks.
- Always wear protective clothing suitable for welding, brazing, soldering, or flame cutting.
- Always wear proper eye protection when welding, brazing, soldering, or flame cutting.
- Keep your work area clean and free of hazards. Flame cutting sparks can travel up to 30-40 feet. Do not allow flame cut sparks to hit hoses, regulators, or cylinders.
- Handle all compressed gas cylinders with extreme care. Keep caps on when not in use.
- Make sure that compressed gas cylinders are secured to the equipment carriage, wall, or other structural supports.
- Store compressed gas cylinders in a safe place with good ventilation. Acetylene cylinders and oxygen cylinders should be kept at least 20 feet apart.
- When compressed gas cylinders or fuel gas cylinders are empty, close the valve, install the cap, and return to correct bottle storage area.
- Use oxygen, acetylene, or other fuel gases with only the appropriate torches and tips.
- Oxygen should not be used for "AIR" in any way.
- Never use acetylene at a pressure in excess of 15 psi. Higher pressure can cause an explosion.
- Never use oil, grease or any other material on any apparatus or thread fitting in the oxyacetylene or oxyfuel gas system. Oil and grease in contact with oxygen will cause spontaneous combustion.
- Do not turn valve tee handle using excessive force.
- When assembling apparatus, crack gas cylinder valve before attaching regulators. This blows out accumulated foreign material. Make sure all threaded fittings are clean and tight.
- Always use the correct sequence and technique for assembling and lighting the torch.
- Always use the correct sequence and technique for shutting off a torch.
- Use mechanical exhaust at the point of welding when welding lead, cadmium, chromium, manganese, brass, bronze, zinc, or galvanized metals.
- Do not weld in confined spaces without special precautions and/or supervisor's authorization.
- Do not weld on containers that have held combustibles without special precautions and/or supervisor's authorization.
- Use weld curtains to shield others from the light rays produced by your gas welding.

4.6 RESISTANCE WELDING SAFETY

Resistance welding safety rules consist of the following:

- Make sure your resistance welding equipment is installed properly, grounded and in good working condition.
- Always wear protective clothing suitable for welding.
- Always wear proper eye and hand protection when operating the welding equipment.
- Keep your work area clean and free of hazards.
- Keep your fingers and hands clear of electrodes.
- Do not touch the weld spot until it has had time to cool.
- Position weld screens to protect others.

4.7 TRAINING

a. All employees using welding equipment must be trained and authorized by Watertap Inc.
b. All Watertap Inc supervisors and employees shall be trained in the following, when welding, cutting, or brazing:
   - Fire suppression equipment (i.e., uses, placement, type, etc.)
   - Hot work permit/site emergency procedures
   - Personal Protective Equipment (i.e., uses, selection, type, etc.)
   - Hazards of hazardous fumes, gases, and dust.
   - Proper storage and use of welding equipment.
   - Proper inspection process of equipment, work areas and PPE.

5.0 ATTACHMENT

a. Attachment 29 – Hot Work Permit

Housekeeping

1.0 PURPOSE

The purpose of this section is to establish housekeeping procedures in the effort to provide a clean, safe, and industrious workplace. Project wastes, trash and/or scrap materials shall be considered prior to the beginning of any work.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 PROCEDURE

All employees will be made aware and trained, as necessary, on the following procedures:

- On a daily basis, all debris and scrap material shall be removed from the work area.
- Debris and other loose materials shall not be allowed to accumulate in stairwells.
- Containers shall be provided for the collection and separation of waste, trash, oily and used rags and other refuse. Metal (dumpster type) containers must be used and emptied promptly.
- Garbage and other waste shall be disposed of at frequent or more regular intervals in a manner approved by Watertap Inc.
- Watertap Inc will make efforts to provide separate containers for material that can be recycled.
- Watertap Inc shall notify Owner of any hazardous waste it will generate during performance of the work. Watertap Inc has the direct responsibility of maintaining proper storage of these wastes while on site and will verify to Owner in writing that the wastes have been disposed of in a legal manner. A copy of the haulers manifest must be provided to Owner upon request.
- Employees shall not pour, bury, burn, or in any way dispose of a chemical on the work project site.
- Employees shall clear all combustible debris to a solid waste disposal project site properly licensed under the laws of the State having jurisdiction.
- No open burning of debris, or rubbish will be permitted anywhere on the project site.
- Materials and supplies shall be stored in locations, which will not block access-ways, and arranged to permit easy cleaning of the area. In areas where equipment might drip oil or cause other damage to the floor surface, a protective cover of heavy gauge, flame resistant, oil proof sheeting shall be provided between the equipment and the floor surface sheeting so that no oil or grease contacts the concrete. This requirement is applicable to both finished and unfinished floors.
- All hoses, cables, extension cords, and similar materials shall be located, arranged, and grouped so that they will not block any access-way and will permit easy cleaning and maintenance.
- Employees will receive awareness training per project, to review owner's requirements.

Ladder Safety

1.0 PURPOSE

The purpose of this section is to establish the requirements to be followed to prevent injury from improper use of ladders by Watertap Inc personnel.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

Ladders are used for many purposes. This guideline outlines terminology, responsibilities, and reviews basic principles to ensure safety and efficiency with using ladders.

4.0 DEFINITIONS

a. Extension (Trestle) Ladder – a portable ladder that is adjustable in length and has a suitable means for locking the ladder sections together.
b. Job-Built Ladder – a ladder that is fabricated at the facility or project and not manufactured.
c. Stepladder – a self-supporting, foldable ladder that is not adjustable in length.
d. Straight Ladder – a non-adjustable ladder.

5.0 PROCEDURE

5.1 GENERAL GUIDELINES

a. Portable metal and wood ladders shall not be used.
b. Defective or damaged ladders shall not be used. Before each use, ladders shall be inspected for the following:
   - Missing non-skid feet
   - Worn or frayed ropes
   - Cracks in sides, frame and/or rungs
   - Missing rivets or other fasteners
   - Bent or missing spreaders
   - Loose rungs
   - Any condition that could pose a safety issue or cause a safety problem
c. Ladders shall not be painted, as paint can obscure damage to the ladder and defects in the materials of construction.
d. The correct type of ladder shall be selected for the job or task. Only fiberglass ladders shall be used at electricity generating facilities. Only non-conductive ladders shall be used for work involving electricity or the use of electrically powered tools.
e. Ladders shall be secured by tying the top or bottom rung to a fixed structure that will support more than the anticipated total load of the ladder. Ensure that an adequate slope is maintained where the base is placed at least ¼ the length of the ladder away from the supporting structure.
f. Ladders used for access to elevated work shall extend at least 3 feet above the elevated surface.
g. The feet of the ladder shall be placed securely on the ground or work floor and not on other objects in an attempt to extend the reach of a ladder.
h. Ladders shall not be lengthened by splicing additional sections to it.
i. Always face a ladder when ascending or descending it.
j. Ladders shall be positioned so that work can be performed without leaning and shall be moved as work progresses.
k. Ladders shall not be placed near power lines or against movable objects or vehicles.
l. Ladders shall not be placed in front of door or doorways that open toward the ladder unless the door is locked in the open position, locked shut or guarded by another employee. If the door is locked shut because of ladder work, post the locked door with a "DO NOT OPEN - WORK IN PROGRESS," or similar signage.
m. Unattended step or straight ladders shall not be left standing but should be closed, lowered to the ground and placed where they do not present tripping hazards.
n. The area around the base and top of the ladder shall be kept free of tripping hazards and barricaded if the base or top projects into a passageway.
o. Ensure that the shoes are free of mud, oil and/or grease before ascending or descending a ladder. Ladder rungs shall be cleaned immediately if they become soiled to reduce slipping hazards.
p. Workers shall use a tool pouch or raise and lower materials using a line or line and bucket rather than carrying them while ascending or descending a ladder.
q. Only one employee shall work from a ladder at a time so that the design load capacity of the ladder is not exceeded.

r. Every excavation, bell hole or trench that is more than four feet deep shall have a ladder(s) that extends at least three feet above the grade surface and be placed so that personnel shall not travel more than 25 feet to get to a ladder.
s. Ladder rungs must be uniformly spaced or meet OSHA/ANSI specifications.
t. Ladders shall only be used for their intended use.

5.2 LADDER SELECTION

a. *Type* - The first step in ladder selection is choosing the right style of ladder for the job. Different styles of ladders are designed to keep you safe and productive when climbing or standing. Using the wrong style of ladder or simply ignoring the limitations of climbing equipment can result in a fall or serious injury. The most common selections will be basic step and extension ladders, however, there are many options available.
b. *Ladder Material* - use only non-conductive ladders when working on or in proximity to any electrical system or device.
c. *Height* - Extension ladders should be 7 to 10 feet longer than the highest support or contact point, which may be the wall or roof line. This will allow enough length for proper setup, overlap of ladder sections, height restrictions of the highest standing level, and where appropriate, the extension of the ladder above the roof line. The highest standing level is four rungs down from the top. The highest permitted standing level on a stepladder is two steps down from the top. A person standing higher may lose their balance and fall. A person's maximum safe reaching height is approximately 4' higher than the height of the ladder. For example, a typical person can safely reach an 8' ceiling on a 4' ladder.
d. *Duty Rating* - Ladders are designed and constructed to safely hold up to a specific amount of weight. Most ladders come in five different Duty Ratings identified by their grade and type. The Duty Rating is defined as the maximum safe load capacity of the ladder. A person's fully clothed weight plus the weight of any tools and materials that are carried onto the ladder must be less than the duty rating. Ladders are also built to handle the demands of various applications. For example, a ladder used frequently on a construction site by rugged workers should typically be stronger and have a corresponding higher Duty Rating than a ladder used by a lighter person for light chores around the home. Workers should be advised to consider both the weight which will be on the ladder and the work application and to select the proper grade of ladder which is designed to handle anticipated usage. Duty Rating is the maximum safe load capacity of the ladder. Duty Ratings are described in terms of pounds. Refer to the chart below for a duty rating summary:

Ladder Type	Duty Rating
Type IAA – Extra Heavy Duty	375 pounds
Type IA – Extra Heavy Duty	300 pounds
Type I – Heavy Duty	250 pounds
Type II – Medium Duty	225 pounds
Type III – Light Duty	200 pounds

5.3 STEPLADDERS

a. Stepladders that wobble shall be removed from service, marked "DO NOT USE - DEFECTIVE" (or similar) and repaired or replaced.
b. Spreaders shall be fully opened and locked before using a ladder.
c. The top step of a stepladder shall never be used. Rather, use a larger stepladder, a longer straight ladder or another method of accessing work.
d. Tools or materials shall not be left on the top step of a stepladder but shall be removed before descending a ladder and/or relocating the ladder.
e. NEVER use a stepladder in the closed position. Use the proper ladder for the task.

5.4 STRAIGHT LADDERS

a. Straight ladders shall be leaned against the structure being climbed so that the distance from the ladder's feet to the base of the structure is ¼ the distance along the ladder's length to its upper contact point with the structure in order to ensure a safe slope.
   • Quick Tip - count the ladder rungs from the feet to the point of contact and divide by 4 - the feet of the ladder should be that many feet from the structure base.
b. At least three feet of ladder should extend above the upper point of contact with the structure being climbed.
c. Use ladder of the length needed. Never work from top two rungs of a straight ladder.
d. When either the length or the weight of a ladder makes it difficult to handle, two people shall raise and secure the ladder. One should secure the feet while the other walks under the ladder from the opposite end until it is raised enough to place or move. Raise the extension, if needed. Reverse the process for lowering the ladder.
e. When the ladder extends more than four feet above the top tie-off, a barrier or flag shall be placed on the ladder to prevent personnel from climbing beyond a safe point.

5.5 EXTENSION LADDERS

a. Extension ladders shall be equipped with necessary irons, locks and hooks and shall be assembled so the sliding (upper or fly) section is on top of the base (lower) section.
b. Extension ladder sections should overlap by at least three feet.
c. If the ladder extends more than four feet above the top tie-off, a barrier or flag shall be placed on the ladder to prevent personnel from climbing beyond a safe point.
d. When either the length or the weight of a ladder makes it difficult to handle, two people shall raise and secure the ladder. One should secure the feet while the other walks under the ladder from the opposite end until it is raised enough to place or move. Raise the extension, if needed. Reverse the process for lowering the ladder.
e. The fly section of an extension ladder shall never be used independently.

5.6 STORING LADDERS

a. Support ladders stored or hung horizontally in a sufficient number of places to prevent sagging and permanent set.
b. Tie together or otherwise secure ladders that are stored vertically to keep them from falling into aisles or equipment.
c. Ladders shall be cleaned after every use before returning to storage. All mud, oil and/or grease shall be removed.

5.7 SECURING LADDERS

a. Ladders that are stored vertically shall be tied together or otherwise secured to keep them from falling into aisles and equipment.
b. All ladders that are not self-supporting shall have an adequate tie-off rope securely attached to the top section of the ladder and to the fixed structure at all times.
c. Have a co-worker hold and brace the ladder in place when the ladder cannot be tied off at the top, when the feet are on a slanting or slippery surface or when the ladder feet cannot be placed between ¼ of the length away from the structure.

5.8 INSPECTIONS

a. Ladders shall be kept in good condition at all times and shall be inspected before each use. Regular inspections help ensure that ladders are safe to use.
b. Ladders found to have defects or damage shall be removed from service, tagged/marked “DO NOT USE - DEFECTIVE”, sent in for repair or destroyed.
c. The quarterly safety inspection shall be recorded and documented by the Supervisor.
d. Proper ladder inspection should include the following points:
   - Ensure that there are no broken or missing step/rungs, broken or split side rails or other defects.
   - Ensure that connections between the rungs and side rails are not loose.
   - Ladders that have fallen or have been misused shall be checked for excessive dents or damage.
   - Ensure that tie-off rope is attached and in good condition.
   - Ensure that the spreaders and locking mechanism on stepladder are in good, working condition.
   - Ensure that hinges move easily and are in good condition.

5.9 TRAINING

All employees using ladders shall be trained in safe ladder use.

5.10 RECORDKEEPING

a. Training records shall be retained for the duration of employment.
b. Inspection records and/or maintenance/repair records shall be retained for the life of the ladder.

6.0 REFERENCES

a. ANSI A14 - Standards for Ladders
b. 29 CFR 1910.27, Fixed Ladders
c. 29 CFR 1926.1053, Ladders

7.0 ATTACHMENT

a. Attachment 30 – Ladder Inspection Checklist

Lockout/Tagout

1.0 PURPOSE

a. The purpose of this section is to prevent accidents and injuries due to unexpected release of energy.
b. This section outlines terminology, responsibilities, and reviews basic principles to ensure safety and efficiency.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Lockout/Tagout procedures are required when employees performing maintenance, testing, or servicing equipment to ensure they are fully protected from unexpected energizing, start-up or release of stored energy that could cause injury.
b. Lockout/Tagout procedures might also be required when employees are performing work around equipment that must be shut down or could cause injury while in service.
c. The most common form of energy is electrical but can also include mechanical, hydraulic, pneumatic, chemical, and thermal.
d. There are two types of energy:
   - Kinetic Energy – the force caused by the motion of an object.
   - Potential Energy – the force stored in an object that is not moving.
     *Potential energy can also be the *potential energy* from suspended parts or springs.

4.0 DEFINITIONS

a. Affected Employee – an employee whose job requires them to operate or use a machine of equipment on which servicing, or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed
b. Authorized Employee – a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that machine or equipment. An affect employee becomes an authorized employee when that employee's duties include performing servicing or maintenance.
c. Energy Source – a source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, stored, or other energy.
d. Energy Isolating Device – a mechanical device that physically prevents the transmission or release of energy, including, but not limited to the following:
   - Manual electrical circuit breaker
   - Disconnect switch
   - Switch disconnecting the conductors of a circuit form all ungrounded supply conductors, and no pole can be operated independently.
   - Slide gate
   - Blind flange
   - Line valve
   - Block/blind or other device
   - Any similar device used to block or isolate energy sources
e. Lockout – the placement of a lock or lock-out device on an energy isolating device according to an established procedure to ensure that the energy isolating device and the equipment being controlled cannot be operated intentionally or unintentionally.
f. Lockout Device – a device that utilizes a keyed lock to hold an energy isolating device in the safe position and prevent unsafe energizing of the equipment.

5.0 RESPONSIBILITY

5.1 SUPERVISORS

Supervisors shall ensure that this guideline is fully implemented and lockout/tagout procedures are followed.

5.2 EMPLOYEES

Employees shall have a full understanding of the energy isolating devices in use.
Employees shall not work on equipment that they have not personally locked out with their own keyed lock.
Employees shall never remove a lock placed by others.

5.3 SAFETY DIRECTOR

The Safety Director shall train employees in the lockout/tagout procedures to ensure the safety of all employees.
The Safety Director shall ensure that lockout/tagout procedures are implemented and that necessary supplies and equipment are available.

6.0 PROCEDURES

6.1 EQUIPMENT REQUIREMENTS

a. Equipment shall be locked with personally assigned locks, group locks that hold several personally assigned locks or a lock-box system (box holding the key to the single lock on the equipment and secured close by several personally assigned locks).
b. A lock must be used if the energy isolating device can physically be held in the safe position by a lock.
c. Each lock shall have only one key and shall be clearly identified as the property of the specific employee.
d. If an energy isolating device cannot physically be locked out with a lock, a tag may be used only if used in conjunction with an additional control such as disconnect of in clear view of the personnel performing work.

6.2 PREPARATION FOR SHUTDOWN

a. Equipment owner or their representative shall approve shutdown of the equipment.
b. Person shutting down the equipment must have a complete understanding of the equipment or system and the energy sources involved.
c. All energy isolating devices shall be identified, and the equipment needed to lockout these devices shall be determined and collected.
d. All remote, emergency, timed and automatic override controls shall be identified and included in the lockout.

6.3 SHUTDOWN - REMOVING EQUIPMENT FROM SERVICE

All affected employees and contractors shall be made aware of the shutdown. Before lockout begins, equipment of system shall be shutdown in an orderly manner.

6.4 ISOLATION

a. Locate and isolate, or relieve, all stored energy such as air pressure, springs, hydraulic systems, and similar residual energy sources.
b. Ensure isolation from all process and utility lines.
c. Place all valves in a safe position, open drains and vents and perform other tasks necessary to de- energize the equipment or system.

6.5 APPLYING LOCKS AND TAGS

Before beginning work on the equipment or system, the following actions to verify lockout/tagout shall be taken:

a. All energy isolating devices shall be set in the safe position and locked in position.
b. Tags reading “DANGER - DO NOT OPERATE” shall be filled out and attached to each locked isolating device.
c. Each person who will work on the equipment must apply his or her personal lock to each locked out isolating device or the lockout device in use.
d. All equipment being locked out and tagged out shall include the name of individual placing device.

6.6 VERIFICATION OF ISOLATION

Before beginning work on the equipment or system, the following actions to verify isolation shall be taken:

a. Ensure that personnel are at a safe distance from the equipment or system.
b. Attempt to start the equipment or system. If the equipment or system does not start, return all controls to the OFF position. If the equipment starts, begin the process again from PREPARATION FOR SHUTDOWN, locate the energy source that is not isolated and isolate it. Continue through the steps until the equipment does not start.
c. The equipment is not “locked out.”
d. Notify affected employees that the lockout is complete.
e. Review all energy isolation device locations and the work to be performed with all members of the team before beginning work.

6.7 REMOVING LOCKS AND TAGS TO RETURN EQUIPMENT TO SERVICE

a. After the planned work has been completed, the following actions to safely return the equipment or system to service shall be taken:
   - Inspect the area to ensure that non-essential items and all waste/debris have been removed and the equipment or system components are intact.
   - Ensure that all machine safety guards have been replaced correctly.
   - Ensure that all members of the team have been notified that the work has been completed and the locks have been removed.
   - Stored energy (i.e., springs, elevated machine members, rotating flywheels, hydraulic system, and air, gas, steam, or water pressure) must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, disconnecting, etc. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

b. When the person who applied the lock or tag is unavailable, another employee designated by the person responsible for administering the lockout/tagout program may remove it if the following conditions are met:
   - A reasonable attempt has been made to contact the person who applied the device.
   - A thorough inspection of the process has taken place.
   - The person who applied the device(s) is notified of the lockout/tagout release before he/she resumes work.
   - A thorough search of the work area for the exposed personnel is completed.

6.8 TESTING EQUIPMENT OR SYSTEM FOR RETURN TO SERVICE

Before returning equipment to service, testing shall be completed as follows:

a. All work on the equipment or system shall have ceased before the lock owner removes each lock from all energy isolating devices. Lockout devices and tags shall be removed.
b. The equipment or system is no longer locked out.
c. The equipment or system may now be tested. Ensure that all employees are at a safe distance from the equipment or system and start the equipment or system to test proper operation. If no further work is required on the equipment or system, the lockout is complete. If further work is required, a complete lockout shall be reinitiated for the system or equipment to be worked on again.
d. When the equipment or system passes the testing or when testing is not required, members of the team shall be notified that the work has been completed. The equipment owner shall be notified that the work has been completed and that the equipment or system is operational.
e. The equipment or system has now been returned to service.

6.9 SHIFT OR PERSONNEL CHANGE

Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of energy isolation, including provisions for orderly transfer of lockout devices between off-going and on-coming shifts or personnel.

a. Off-going personnel shall brief on-coming personnel on progress relating to the locked out/tagged out equipment or system.
b. Off-going personnel will remove their lockout device, to be replaced immediately by on-coming personnel's lockout device.
c. These steps will continue with subsequent personnel/shift changes until adjustment or repair to the equipment or system is complete.
d. The Responsible Manager shall in charge of the lockout device/operation during a shift or personnel change.

6.10 USE OF MULTIPLE LOCKOUT/TAGOUT PROCEDURES

When multiple lockout/tagout procedures are used during project activities, the following shall be done:

a. Each employee (e.g., Watertap Inc, contractor, and Owner) shall inform each other of their respective lockout/tagout procedures.
b. Each employee (e.g., Watertap Inc, contractor, and Owner) shall ensure that his or her employees understand and comply with the restrictions and prohibitions of each employee's lockout/tagout procedure.
c. An authorized employee shall have the responsibility of a set number of employees.

6.11 USE OF CUSTOMER OR EQUIPMENT OWNER'S LOCKOUT/TAGOUT PROCEDURES

When it is determined the Owner's or equipment owner's lockout/tagout procedure will be used by all employees during project activities, the following shall be done:

a. Each employee (e.g., Watertap Inc, contractor, and Owner) shall obtain a copy of the Owner's or equipment owner's lockout/tagout procedure.
b. Each employee (e.g., Watertap Inc, contractor, and Owner) shall ensure that his or her employees, engaged in activities covered by the scope and application of the OSHA lockout/tagout standard, understand, and comply with the Owner's or equipment owner's lockout/tagout procedure.

6.12 ANNUAL PROGRAM REVIEW

The written lockout/tagout procedure shall be reviewed annually and all appropriate improvements to the program shall be made.

6.13 TRAINING

Authorized and affected employees shall be trained in lockout/tagout procedures. Employees shall be re-trained whenever the following conditions exist:

a. There is a change in equipment, machinery, or systems.
b. The control procedures are changed or revised.
c. The lockout/tagout procedures are changed or revised.
d. The annual review reveals deficiencies in employees' knowledge or use of the procedure.
e. All training and re-training must be documented, signed, and certified.

6.14 RECORDS

a. Records of employee training or retraining shall be retained for the duration of employment.
b. The lockout/tagout procedure shall be reviewed annually and retained at the facility/project until superseded, plus one year.

7.0 REFERENCES

a. National Safety Council
b. 29 CFR 1910.147, The Controls of Hazardous Energy (Lockout/Tagout)

8.0 ATTACHMENTS

a. Example of Lockout Tag (Front and Back)
b. Example of Multi-Lock Devices
c. Attachment 31 – Lockout/Tagout Plan
d. Attachment 32 – Lockout/Tagout Annual Program Review

Example Lockout Tag (Front and Back)

Examples of Multi-Lock Devices

Personal Protective Equipment (PPE)

1.0 PURPOSE

a. The purpose of this section is to establish the requirements to be followed to prevent injury by providing the proper personal protective equipment (PPE), identifying where it is to be used and enforcing its required use.
b. This section outlines terminology, responsibilities, and reviews basic principles to ensure safety and efficiency through proper use of personal protective equipment (PPE).

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Precautions shall be taken to prevent personal injury due to hazards associated with the performance of tasks under hazardous conditions.
b. PPE shall meet ANSI standards, or equivalent, be NIOSH or MSHA approved, or equivalent.
c. Affected employees shall be trained in the selection, use, care, and limitations of the PPE they use and shall wear PPE that is appropriate to the job of that is required for the area in which they are working.
d. To keep PPE in proper working condition, it shall be maintained in a clean/sanitary state.
e. PPE shall be inspected by the user before each use and defective or damaged PPE shall be removed from service and replaced immediately.
f. PPE shall be fitted to each affected employee.
g. Areas with specific PPE requirements shall be marked appropriately.
h. Watertap Inc shall supply employees with all required PPE.
i. *Employee-owned PPE is permitted unless otherwise prohibited by site requirements. Employee-owned PPE must be approved by the Supervisor and/or Safety Director prior to use, and is subject to the same requirements as non-employee-owned PPE.*
j. Necessary PPE shall be provided to visitors during their visit to Watertap Inc projects or facilities.
k. A hazard assessment shall be performed and signed on all PPE.

4.0 DEFINITIONS

a. Flame Resistant Clothing (FRC) – clothing made of fabric that retards burning (i.e. Nomex).
b. Metatarsal – the middle section (or instep) of the foot, not the toe or the heel.

5.0 RESPONSIBILITY

5.1 SUPERVISORS

Supervisors shall ensure that adequate supplies of PPE are on hand and enforce the use of required PPE. Supervisor shall complete and sign the PPE hazard assessment form.

5.2 EMPLOYEES

Employees shall be trained to know when to use PPE and shall use the appropriate PPE at all times. Employees shall inspect PPE prior to use and shall remove damaged PPE from use and report the need for replacement.

5.3 SAFETY REPRESENTATIVE

The Safety Representative shall perform job/task safety analyses and document the findings to identify PPE needs. The Safety Representative shall ensure that the annual inspection of personally assigned PPE is performed and documented. The Safety Representative shall ensure that adequate supplies of appropriate PPE are available for use. The Safety Representative shall perform an analysis of the possible need for flame retardant clothing (FRC). The Safety Representative shall train employees, or arrange training, on the proper use of PPE.

6.0 PROCEDURE

6.1 CLOTHING

a. Clothing shall be reasonably clean. Clothing contaminated with oil, dirt or other materials can cause skin irritations by holding those materials in contact with the wearer's skin. Flammable substances on clothing constitute a fire hazard.
b. The use of Flame Retardant Clothing (FRC) shall be evaluated by the Safety Representative for the specific jobsite or facility. Identified FRC requirements shall be met with the appropriate grade of Nomex, or equivalent. Areas requiring FRC shall be posted.
c. Clothing shall be kept close to the body so that it does not snag or get caught in machinery. Long- sleeved shirts shall be buttoned at the wrist and shirt tails shall be tucked into trousers.

d. Sleeveless shirts and blouses, tank-tops, muscle shirts, mesh fabric shirts, uncontrolled long sleeves and similar inappropriate non-work clothing shall not be worn in project areas.
e. Clothing shall not be used to clean welding torch tips as acetylene impregnated fabric is highly flammable.
f. Welding apparel should adhere to the following requirements:
   - Clothing shall protect skin from hot sparks, electric arc and welding rays.
   - Leather chaps, aprons and sleeve guards shall be worn when necessary.
   - Clothing with synthetic fabrics, open shirt pockets or pant cuffs that can catch sparks or slag shall not be worn.
g. Electrical workers shall wear long sleeved, non-synthetic shirts with the sleeves rolled down in the following circumstances:
   - When rubber gloves are required.
   - When climbing poles is required.
   - When working in manholes or vaults, on overhead lines, in underground installations, with hot compounds, oils, metals or open flame or near hot boiler piping.
   - When working with chemically treated poles.
   - When working with chemicals.
h. Fire Retardant Clothing (FRC) shall be worn when switching, grounding, or performing other work where high voltage arcing or flash-over could occur and when working around energized high voltage conductors in confined spaces.
i. Chaps or other thigh to shoe top protection shall be worn when operating a chain saw.

6.3 Jewelry and Hair

a. Employees shall review the tasks to be performed and consider whether there is a danger of catching jewelry on equipment. This can result not only in the loss of the jewelry, but in personal injury.
b. When performing fieldwork, employees shall remove any item that could present a hazard when performing such work (i.e., finger rings, watches, bracelets, necklaces and other jewelry).
c. Long, uncontrolled hair can be caught in machinery and result in severe injury. Hair shall be maintained short or controlled in a manner that does not pose a hazard where appropriate.

6.4 Eye and Face Protection

Refer to the Personal Protective Equipment – Eye and Face Protection section of this manual.

6.5 Head Protection

a. Head protection must meet ANSI Z89.1m Class A or Class B standards, or equivalent.
b. Head protection shall be inspected by the wearer regularly to ensure that the suspension system is secure and undamaged. In addition, the shell shall be free of gouges, dents, and other damage and not brittle from age or exposure to chemicals. Damaged head protection shall be removed from service and replaced immediately.
c. Aluminum or other metal head protection (Class C) shall not be worn.
d. Head protection shall not be decorated with stickers, paint, decals, or any other items that may hide damage or defects that may affect the protection level afforded. The only items permitted shall be:
   - Company logo.
   - Orientation stickers.
   - Employee's name on plastic tape.
   - Only approved winter liners may be worn with head protection.
   - When there is danger of the head protection fall off or being blown off, a chin strap shall be provided and worn.

6.6 Foot Protection

a. Approved safety shoes must meet ANSI Z41.1 standard or equivalent standards and be suitable for field work.
b. Toe and/or metatarsal guards that meet ANSI A41.1 standard or equivalent are approved for use as foot protection. These guards shall be provided by Watertap Inc for the use of employees who are unable to wear safety shoes or who, due to the nature of their job tasks, required additional foot protection.

6.7 Hand Protection

Refer to the Personal Protective Equipment – Hand Protection section of this manual.

6.8 Electrical Protection

Electrical protection rubber gloves classifications and requirements are as follows:

a. Class 0 - for voltages from 50 to 1,000 volts
b. Class 2 - for voltages from 50 to 5,000 volts
c. Class 4 - for voltages greater than 5,000 volts

6.9 HEARING PROTECTION

Refer to the PERSONAL PROTECTIVE EQUIPMENT – HEARING PROTECTION AND CONSERVATION section of this manual.

6.10 RESPIRATORY PROTECTION

Refer to the PERSONAL PROTECTIVE EQUIPMENT – RESPIRATORY PROTECTION section of this manual.

6.11 FALL PROTECTION

a. Fall protection (body harness and lanyard) is required whenever there is a possibility of falling more than 6 feet to the ground or another surface.
b. Requirements for fall protection are contained in the FALL PROTECTION section of this manual.

6.12 FLOATATION DEVICES

a. Floatation devices shall be fire retardant and capable of keeping an unconscious person's head out of the water. A floatation device shall retain 95% of its buoyancy for at least 24 hours in fresh water.
b. Personal floatation devices shall be worn whenever working near or over water or from the deck of a watercraft.
c. Additional information on the use of floatation devices is contained in the FALL PROTECTION section of this manual.

6.13 SEAT BELTS

Seat belts shall be available in powered equipment and over-the-road vehicles having a standard operator's seat and shall be used at all times while the equipment or vehicle is in operation.

6.14 TRAINING

a. Affected employees shall be trained in the selection, use and limitations of PPE required while performing their duties.
b. Affected employees shall be trained in the maintenance and care of PPE, including proper sanitary conditions.
c. Affected employees shall wear fitted PPE and be trained on how to properly fit PPE to their person.
d. Retraining of an employee shall be conducted when:
   - Lack or improper use of fall protection equipment is observed
   - Insufficient skill of understanding of fall protection equipment is demonstrated
   - An employee is found to be noncompliant with the fall protection policy
   - A change in the workplace occurs and/or new, or unfamiliar, task is assigned

6.15 RECORDS

a. The most recent record of employee training in the selection, use, care, and limitations of PPE shall be retained.
b. The current PPE Reimbursement Policy shall be retained.
c. The current job/task safety analysis reports shall be retained.

7.0 REFERENCES

a. American National Standards Institute, Standard Z Series
b. ASTM D-120-87, Specifications for Rubber Insulating Gloves
c. National Electric Code
d. National Safety Council.
e. 29 CFR 1910, Personal Protective Equipment
f. 29 CFR 1910.268, Telecommunications
g. 29 CFR 1910.269, Electric Power Generation, Transmission and Distribution

Personal Protective Equipment (PPE)
Eye and Face Protection

1.0 PURPOSE

The purpose of this section is to provide information that shall assist in preventing eye and face injuries resulting from contact with chemical and physical agents.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each hazard should be provided:

- Eye protection devices do not provide unlimited protection.
- Face shields and welding helmets should be worn over primary eye protection (approved safety glasses or goggles).
- Protection from light radiation is directly related to filter lens density. Select the darkest shade that allows task performance.

4.0 RESPONSIBILITY

4.1 EMPLOYEES

All employees shall comply with the policy outlined in this document.

4.2 SUPERVISORS

Supervisors shall ensure that employees under their supervision comply with this policy.

4.3 SAFETY REPRESENTATIVES

Safety Representatives shall ensure that employees and supervisors are performing their responsibilities as outlined in this document.

5.0 PROCEDURE

5.1 SAFETY GLASSES

a. Safety glasses meeting ANSI Z87.1 standards equipped with permanently affixed sideshields shall be worn as standard eye protection.
b. Tasks requiring additional eye and face protection shall be identified and the eye/face protection shall be provided to employees.
c. The following safety glasses are approved for use by Watertap Inc employees:
   - Clear plastic safety glasses meeting ANSI Z87.1 standards equipped with sideshields.
   - Prescription safety glasses meeting ANSI Z87.1 standards and having "Z87" etched in the temple bar of the glasses.
   - Equipped with permanently affixed sideshields.
   - Tinted plastic safety glasses meeting ANSI Z87.1 standards equipped with sideshields (only for outdoor work during daylight hours).
   - Photo-Gray .5 or less prescription safety glasses meeting ANSI Z87.1 standards equipped with permanently affixed sideshields. Photo-Gray lenses are designed to darken when exposed to sunlight and lighten when exposed to indoor lighting.
   - Tinted safety glasses are not approved for use indoors.
   - Tinted safety glasses are approved for outdoor work during daylight hours when sun glare presents a hazard.
   - Approved safety glasses must be worn on the project at all times. No exceptions. This includes indoors and in the field.
   - Approved safety glasses shall not be required while driving vehicles in field locations unless required by customer policy.
   - Approved safety glasses must be worn in office, plant, field or outside of project areas when there is the potential for exposure to flying particles.
   - Approved safety glasses must be worn in areas designated with "Safety Glasses Required" or "Eye Protection Required" signage.
d. Visitors shall be provided safety glasses during visits.
e. Non-safety prescription glasses wearers shall be required to wear goggles or "fit-over" safety glasses over the prescription glasses.

5.2 GOGGLES

a. Chemical goggles must be worn when there is a potential for exposure to irritant chemical splash or mist. If the chemical presents a severe hazard or is destructive to skin tissue, a faceshield must be worn over the goggles.
b. Goggles must be worn when there is a potential for exposure to nuisance dust. Examples include sandblasting, using hot glass shot machines, woodworking, sanding and generally dusty conditions.

5.3 WELDING GOGGLES

a. Welding goggles or faceshield must be worn by welders and aides during welding operations.

b. Welding goggles shall be equipped with American Optical Caliber Super Armor Plate lenses with Breeze Catcher side shields and Comfort Cable temples or equivalent.
c. Lens shades shall be selected based on the type of welding being done.

5.3 FACESHIELDS

a. Faceshields shall be equipped with a means of firmly attaching them to the appropriate head protection
b. Faceshields shall be used with safety glasses or goggles and shall never be used as primary eye protection.
c. Clear faceshields must be worn over approved safety glasses when using pedestal grinders and portable grinders.
d. Clear faceshields must be worn when there are potentials for exposures to severe hazard chemicals or chemicals that are destructive to skin tissue.
e. Clear faceshields and goggles must be worn when making "first breaks" on lines that contain hazardous chemicals.
f. Welding or filtered lens faceshields must be worn with using torches or "rosebuds."

5.4 WELDING HELMETS

a. Welding helmets must be worn when performing electric arc welding or gouging.
b. Welding helmets used for electric arc welding or gouging shall be equipped with lenses rated from 10-4.

5.5 TRAINING

a. Training shall be provided as part of an employee's initial orientation and when it is determined that the employee does not have the understanding and skill required to properly use the eye and face protection required for the task.
b. Any training in the eye and face protection shall be documented to reflect, at a minimum:
   - Name of trainee
   - Date of training
   - Subject of training
c. The employee's supervisor shall ensure that employees receive required training before they are exposed to eye and face hazards.

Personal Protective Equipment (PPE)
Hand Protection

1.0 PURPOSE

The purpose of this section is to provide information to prevent hand and finger injuries when performing construction operations.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Gloves shall be worn at all times when the hands are exposed to potential injury.
b. Gloves shall not be worn when working on or around rotating equipment such as lathes, mills, drill presses and similar equipment.
c. Employees shall request gloves based on the work to be done and/or the chemicals they shall handle. The SDS for the chemicals to be handled shall be consulted to determine to type of glove needed to handle safely.
d. Several types of gloves shall be stocked at all times. Unusual (not typically stocked) gloves shall be requisitioned for a given task.
e. Requirements for care of electrical protection rubber gloves are as follows:
   - Gloves shall be stored in glove bags with the cuffs down.
   - Gloves shall not be stored or worn inside out.
   - Employees shall inspect the gloves before each use using the air test method for detection of holes.
   - Gloves shall be electrically tested every 6 months. Records of the issue and test dates must be kept with the gloves.
f. Look for scratches, cracked rubber, snags, blisters, embedded foreign matter or other defects. Defective gloves and their protectors shall be returned to the supply point or other location, as appropriate.
g. Leather protectors shall be worn over the rubber gloves when there is a possibility of making contact with a wire or when on a pole or structure carrying a wire.

4.0 PROCEDURE

4.1 REQUIRED TASKS

Hand protection is required when workers are performing any of the following tasks:

a. Handling metal materials with sharp edges; including tie-wire and wire rope
b. Handling wood materials
c. Cutting operations involving hand-held, non-power operated cutting tools; including utility & exacto knives, shears, and saws
d. Sharpening of knives, saws, blades, etc.
e. Concrete operations, specifically where hands are exposed to wet concrete, and during removal/demolition
f. Pulling wire in/around electrical panels
g. Performing Energized Electrical Work (EEW)
h. Using impact type tools; including chipping hammers, jack hammers, post drivers, and powder-actuated tools
i. During all hot work operations; including welding, grinding, cutting
j. Working on/near equipment, or with materials, affected by extreme temperatures, including mechanical work on hot parts
k. Working on/near refrigerant or argon lines
l. Handling hazardous materials which require the use of hand protection to avoid skin contact, as indicated on the Safety Data Sheet (SDS), including paints, solvents, adhesives, caustics, corrosives, and petroleum products (i.e., fuel, hydraulic fluid, motor oil, etc.)
m. Working with glass materials
n. Handling and removal of trash
o. During certain operations which require workers to wear protective clothing such as asbestos or lead abatement

4.2 GLOVE MATERIALS

a. Neoprene - Protects from acids, caustics, oils, greases, and many solvents
b. PVA - Protects from aromatics, ketones, and chlorinated solvents (Xylene, Trichlorothylene)
c. Butyl - Protects against common organic acids and caustics, alcohols, esters, acetone, and ketones
d. PVC - Protects against chemicals, oil and greases, acids, and petroleum hydrocarbons
e. Nitrile - Protects against greases, oils, acids, and solvents

4.3 GLOVE SELECTION

a. Different exposures require the use of different types of gloves.
b. Evaluate each situation to ensure which is the appropriate type of hand protection.

Operation	Glove Type
Energized Electrical Work (EEW)	Electrically insulated-rated rubber gloves with leather protectors
Welding operations	Gauntlet-type leather welding gloves
Grinding operations	Tight-fitting leather gloves
Exposure to sharp edges & metal burrs	Cut-resistant gloves (Kevlar® or tight-fitting leather)
Utility knives, hacksaws, & cross-cut saws	Cut-resistant gloves (Kevlar®)
Concrete work	Rubber or leather gloves
Exposure to petroleum products	Chemical-resistant gloves per the SDS requirements & manufacturers requirements (Neoprene, PVC, Nitrile or Rubber) *
Exposure to hazardous materials such as solvents, paints, adhesives, etc.	Chemical-resistant gloves per the SDS requirements & manufacturers requirements (Neoprene, PVC, Nitrile or Rubber) *
Working around machinery	Tight-fitting leather gloves should be utilized when hand protection is necessary around rotating equipment to prevent entanglement of gloves/hands in machinery
Proximity & exposure to excessive heat, or hot piping and equipment	Kevlar® heat resistant gloves and sleeves
Using saws – portaband, and reciprocating	Tight-fitting leather gloves
Handling wire rope/rigging	Tight-fitting leather gloves
Handling glass	Cut-resistant gloves - Kevlar®
Handling wood	Tight-fitting leather gloves

Personal Protective Equipment (PPE)
Hearing Protection and Conservation

1.0 PURPOSE

a. The purpose of this section is to establish the requirements of the hearing conservation program, designed to reduce employee exposure to noise by means of equipment modification, hearing protectors and employee training.
b. This section outlines terminology, responsibilities, and reviews basic principles to ensure safety and efficiency.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

This section is intended to give necessary information regarding hearing conservation for the protection of personnel who work in high noise areas.

4.0 DEFINITIONS

a. Audiogram – a chart, graph or table resulting from an audiometric test showing an individual's hearing threshold levels as a function of frequency.
b. Audiometric Testing – tests performed using an instrument that presents measured sound frequencies and levels to the ear and records the responses made by the test subject. The resulting report is an audiogram.

5.0 PROCEDURE

5.1 IMPLEMENTATION

A hearing conservation program shall be implemented for all employees exposed to noise levels of 85 dBA or greater as a time-weighted average of eight hours. Implementation should include the following:

- Affected employees noise exposure will be measured when information indicates that any employee's exposure may equal or exceed an 8-hour time-weighted average of 85 decibels (dBA). These measurements will be repeated whenever a change in production, process, equipment, or controls increases noise exposure to the extent that additional employees may be exposed, or hearing protectors being used by employees may become inadequate.
- Noise exposure measurements of activities suspected of producing noise levels greater than 85 dBA will be performed by a Certified Industrial Hygienist.
- Noise levels are to be monitored with a dosimeter during an average 8-hour day.
- Those employees whose noise exposure is equal to or greater than 85 dBA as an 8- hour time-weighted average shall be notified in writing of the monitoring results.
- All employees exposed to 85 dBA or greater shall undergo before working and yearly audiometric examination.

5.2 AUDIOMETRIC TESTING

Audiometric testing guideline is as follows:

- Employee testing shall be performed by a technician certified by the Council for Accreditation in Occupational Hearing Conservation.
- Employees will be notified of testing by Watertap Inc. Employees must have 14 hours of non- exposure to workplace noise prior to testing.
- Each employee shall have a baseline audiogram within the first 6 months of exposure.
- Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine whether a Standard Threshold Shift (STS) has occurred.
- If an STS has occurred, the employee shall be retested within 30 days and the retest shall be considered the annual audiogram.
- If the STS is still present after the retest, the employee shall be informed in writing within 21 days and referred to an otolaryngologist after a complete examination.
- If a physician determines an STS exists, the employee shall be refitted with hearing protectors, trained in their use and care, and required to wear them.

5.3 HEARING PROTECTION

Hearing protection should include the following:

- All employees are provided with hearing protectors at no cost to the employee.
- Hearing protection is required of all Watertap Inc employees or contractor employees entering an area of 85 dBA noise level or greater.
- Hearing protection is required of all employees who have experienced an STS when entering an area of 85 dBA or greater.
- Hearing protection types made available to employees will include disposable earplugs, canal caps and earmuffs from two different manufacturers.

- Additional hearing protection will be made available upon evaluation of specific noise environments.

5.4 Training Program

Annual training shall be provided for Watertap Inc employees who are placed in the hearing conservation program. This training will emphasize:

- The OSHA Noise Standard with examples of specific areas within the work area where hearing protection is required.
- Effects of sound and the damage it does to the hearing.
- Dangers of excessive exposure and examples of both on and off the job noise.
- Methods to decrease sound exposure both on and off the job.
- Warning signs of hearing loss.
- Effective methods of hearing protection (plugs, muffs, limited exposure).
- Proper fitting and use of, and caring for, hearing protectors
- Advantages, disadvantages, and attenuation factors for various styles of hearing protection.
- Purpose and procedure for audiometric testing.
- The Safety Director will be responsible for the development, scheduling and delivery of training mandated by OSHA regulations.

5.5 Recordkeeping

a. Watertap Inc will maintain accurate records for all noise level surveys and employee exposures.
b. Employee's baseline/annual audiograms and any other records will be retained in a separate file in the Human Resources Department for the duration of employment plus 30 years after termination.
c. Records will be provided to employees, former employees, or designated representatives thereof, upon written request to Watertap Inc.

Personal Protective Equipment (PPE)
Respiratory Protection

1.0 PURPOSE

a. The purpose of this section to establish general provisions that are in compliance with OSHA regulations as they apply to respiratory protection.
b. Employees of Watertap Inc, during their regular course of duty, may be required to enter environments where airborne contaminants, toxins or sufficants are present. As such, a comprehensive respiratory protection program is mandatory.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 RESPONSIBILITIES

3.1 COMPANY

a. Watertap Inc shall make available to all employees, whose work requires entrance into a potentially hazardous environment, an appropriate respirator for his/her use for protection against the potential hazards encountered. Respirators will be provided at no cost.
b. Watertap Inc shall provide training in proper use and care of the respiratory protection devices including refresher training. A qualified technician shall perform maintenance, other than routine preventative maintenance. There shall be no interchange of parts between respirators of differing brands, makes or models.
c. Watertap Inc will ensure that no employee is assigned a respirator unless is has been determined that the employee is physically able to perform the work and use the respirator. Prior to fit testing, employees shall have successfully completed a pulmonary functions test and be certified medically fit to wear a respirator. The respirator user's medical status will be reviewed annually by a local physician.

3.2 EMPLOYEES

a. Employees shall wear the respiratory protection device when performing takes in areas where the potential for exposure to airborne contaminants, sufficants or toxins exist.
b. Employees shall maintain a facial surface consistent with a proper fit for the respiratory protective device (i.e., no beards and be clean shaven).
c. Employees shall be required to read this respiratory protection program and literature pertaining to the use and care of the respirator device to be used by them.
d. Employees shall be responsible for routine care and maintenance of the respiratory protective device.
e. Employees shall use the respiratory protective device in accordance with instructions and training received.
f. Employees shall be given a confidential medical evaluation prior to fit-testing. The evaluation shall be convenient, understandable, and given during working hours.
g. Employees shall have the opportunity to discuss the results with the physician, or other licensed health care professional (PLHCP).
h. Employees shall not perform work in IDLH atmospheres.

3.3 PROJECT MANAGERS/SUPERVISORS

Project Managers/Supervisors shall be available to resolve questions related to respirator use and care. If a Project Manager/Supervisor cannot resolve the question or issue, the supervisor shall refer the matter to the Program Administrator.

3.4 PROGRAM ADMINISTRATOR

a. The President, Ron Urbanczyk, of Watertap Inc, is designated as the administrator for the Respiratory Protection Program. As administrator for the program, the President, Ron Urbanczyk, has the authority to make decisions and implement changes to the Respiratory Protection Program as necessary.
b. Responsibilities for the Program Administrator shall include, but not limited to, the following:
   - Identification of areas requiring respiratory protection.
   - Determining the level of protection necessary to accomplish a specific task.
   - Respirator selection purchases and inventory.
   - Associate training.
   - Establishment of continuing program of cleaning and inspection of respiratory equipment.
   - Evaluation of program to determine effectiveness.
   - Maintenance of records related to this program.

4.0 PROCEDURES

4.1 MEDICAL EVALUATIONS

a. All employees who are expected to wear a respirator must have a medical evaluation completed by a physician or other licensed health care professional (PLHCP).
b. The medical evaluation shall include the medical questionnaire as required by OSHA.
c. Follow-up medical evaluations shall be completed if an employee answers, "Yes", to any question among questions 1 through 8 of the medical questionnaires, or if needed as a result of the initial medical evaluation.
d. Additional medical evaluations shall be completed if an employee reports medical signs or symptoms that affect the employee's ability to use a respirator, a change in workplace conditions may increase the physiological burden on a worker, information in the respiratory protection program deems it necessary, or as determined by a PLHCP, supervisor, or respiratory protection program administrator.

4.2 FIT TESTING

a. Quantitative fit testing will be the method used by Watertap Inc to ensure that the respirator assigned to an employee will provide the proper level of protection against air contaminants.
b. The Program Administrator will control the fit testing process.
c. Fit testing records will be maintained at the office.
d. Employees must be clean shaven when undergoing fit testing.

4.3 SELECTION OF RESPIRATORS

a. The selection of proper respirators involves three steps:
   - Determination of the hazard.
   - Choosing equipment that is certified for the function.
   - Assuring the device is performing the function it is intended to do.
b. Proper selection of respirators must be made according to the OSHA requirements set forth in 29 CFR 1910.134 and the ANSI publication "Practices for Respiratory Protection," ANSI Z88.2-1990.
c. Chemical and physical properties of the contaminant as well as the toxicity and concentration of the hazardous material and the amount of oxygen present must be considered during the respirator selection process.
d. The nature and extent of the hazard, the work rate, the area to be covered, mobility, work conditions as well as the limitations of the available respirators must also be considered.
e. There are two basic types of respirators:
   - *Air-Purifying Respirators* - devices designed to remove contaminants from the air by either mechanical or chemical means. These devices do not add oxygen to the breathing atmosphere and therefore should not be used in oxygen deficient atmospheres.
   - *Air-Supplying Respirators* - devices that supply the user with a safe supply of breathing air independent of the ambient atmosphere. They are designed to be used in atmospheres that contain contaminants above the safe limits of air-purifying respirators or where the atmosphere is oxygen deficient.
f. The Program Administrator and safety representatives will determine respirator type required for the task.
g. High breathing resistance of air-purifying respirators under conditions of heavy work can result in distressed breathing.
h. A person working in an area of high temperature is under stress. Using a respirator with minimum weight and breathing resistance should minimize additional stress.

4.4 USE OF RESPIRATORY PROTECTION EQUIPMENT

Respiratory equipment will be provided for employees to use in oxygen deficient environments and environments containing harmful vapors when engineering controls are not feasible or during emergency situations with high exposure. Respiratory equipment guidelines are as follows:

- Where practical, respirators should be assigned to individual employees for their exclusive use.
- Only those respirators jointly approved by OSHA and NIOSH shall be used.
- Respirators shall not be used when conditions such as facial hair prevent a good seal of the respirator.
- Corrective lenses present a problem in maintaining a proper seal. If corrective lenses are needed, a qualified technician must fit the face-piece and lens.
- Cartridges shall be changed at intervals not to exceed two weeks.
- It is mandatory that employees wear the appropriate respirator when working where the air contains regulated substances in concentrations exceeding the permissible exposure limit (PEL).

- Any employee wearing a respirator must immediately stop work, leave the area, and report the matter to their supervisor if any of the following conditions exist:
  - Dizziness
  - Difficulty breathing
  - Other physical stress
  - Damage to, or ineffectiveness of the respirator being worn
  - The taste or smell of any contaminant
  - Any unfamiliar taste or smell that troubles or concerns the employee

4.5 WORK AREA SURVEILLANCE

Work area surveillance guidelines are as follows:

- Project Managers/Supervisors shall maintain surveillance of work conditions in all places where employees for whom they are responsible are using respirators.
- The Project Manager/Supervisor will monitor employee exposure and stress to determine if any additions to, or changes in, respirator use are needed.
- The Project Manager/Supervisor shall promptly notify employees of changes whenever they are needed.
- Surveillance of conditions in the work area and the degree of employee exposure or stress must be maintained at all times.
- Periodic testing may be required in order to assure that the contaminant level has not risen above the maximum capability of the respirator being used.

4.6 INSPECTION, MAINTENANCE, CARE, AND STORAGE OF RESPIRATORY PROTECTION EQUIPMENT

Inspection, maintenance, care, and storage of respiratory protection equipment should consist of:

- The user, before and after each use, shall inspect all respirators.
- Respirators that are not used routinely shall be inspected monthly and after each use.
- Routinely used respirators shall be cleaned and disinfected at least twice weekly and as frequently as necessary to ensure proper protection for the user. The respirator user shall perform the cleaning and disinfecting.
- All worn/deteriorated respirator parts shall be repaired or replaces, using only parts designated for the respirator.
- Only qualified technicians shall perform non-routine maintenance on respirators.
- Respirators shall be stored in a manner that will protect them against dust, sunlight, temperature extremes, excessive moisture, and contamination.
- Respirators shall not be stored in such a manner that they will become deformed or otherwise damaged so as to impair its performance.
- Involved supervisors and the Program Administrator will continuously monitor cleaning and disinfecting practices.

4.7 TRAINING

a. All respirator users shall receive training in the proper use, care, and maintenance of respirators.
b. Training shall be conducted annually or as required by use of a different respirator.
c. Training certification will be maintained that includes employee's name, date of training and type of training.
d. Training shall include handling the respirator, proper fitting, testing seal and integrity and wear in a test environment.

4.7 PROGRAM REVIEW

a. The Respiratory Protection Program shall be reviewed annually to ensure its adequacy.
b. The Program Administrator will conduct the annual review.

4.8 OUTSIDE SERVICES

Many qualified and competent subcontractors are available to provide complete and appropriate respiratory protection services. Their services should be considered with multiple employees, large exposure areas, large exposure times or confined space entry considerations are applicable.

5.0 REFERENCES

a. Compressed Gas Association
b. National Safety Council
c. 29 CFR 1910.134, Respiratory Protection.

6.0 ATTACHMENTS

a. Attachment 33 – Respirator Inspection Checklist
b. Attachment 34 – Respiratory Protection: OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

Rigging Safety

1.0 PURPOSE

The purpose of this section is to provide information regarding general rigging safety.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 QUALIFIED RIGGER

a. Only a qualified rigger, by OSHA definition, is permitted to rig equipment and materials.
b. A qualified rigger shall be appointed by Watertap Inc, or contractor.
c. The qualified rigger shall inspect all rigging equipment.
d. Inspection shall be completed and documented prior to starting work, each shift.
e. All defective or damaged rigging equipment shall be immediately removed from the project.
f. Chain slings are not permitted to be used for any lifting operation unless specifically designed for a unique application.

4.0 PROCEDURE

4.1 RIGGING PRACTICES

a. Do not damage machines and soft surfaces with the lifting apparatus.
b. Avoid sharp bends in slings and protect slings from sharp edges and abrasions.
c. Set loads on proper blocking/cribbing - never directly on a sling.
d. Do not side load.
e. Maintain an angle between the sling and the load horizontal greater than 45° to reduce stress on the sling.
f. Attach cable clips properly. The saddle should be on the load cable, the U-bolt on the dead end. NEVER SADDLE A DEAD HORSE.
g. Do not stand or walk under suspended loads.
h. Do not leave loads unattended at any time. Use tag lines of sufficient length to control the lift.
i. Tag lines shall be used to receive all loads.

4.2 RIGGING EQUIPMENT

a. Know the safe carrying capacity of sling chains, wire rope and other lifting apparatus and load weights.
b. Do not overload equipment.
c. Ensure rigging equipment and lifting equipment have compatible components and capacities.
d. Immediately discard defective lifting/rigging equipment.
e. Do not tie knots in sling chains, rope slings or wire cables to shorten or splice it.
f. Do not exceed the lifting device's load capacity.
g. Do not use rope for rigging or lifting loads except where it is impractical to use other methods.
h. Modify lifting equipment only after engineering approval.
i. Rigging equipment shall be properly stored in a manner which is not hazardous for an employee and removed from the work area when not in use.
j. Latches shall be in place on all hooks to eliminate the hook throat opening. Hooks without latches shall be tagged and removed from service immediately.

5.0 REFERENCES

a. 29 CFR 1926 Subpart CC
b. ANSI ASME B30.9-2018 / B30.10-2019 / B30.20-2018 / B30.26-2015

6.0 ATTACHMENTS

a. Attachment 35 – Rigging Equipment Inspection: Synthetic Sling
b. Attachment 36 – Rigging Equipment Inspections: Wire Rope

Tool and Equipment Safety

1.0 PURPOSE

The purpose of this section is to establish the requirements for the use and selection of tools and equipment.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Tools and equipment used to perform a job or task should be inspected daily to determine that they are safe and in good working condition, and, if required, have proper guarding before starting the job/task. Certain tools and equipment are inspected on a periodic basis; however, this does not guarantee the tools/equipment will be safe to use all the time.
b. Tools which are not in compliance with any applicable requirements shall not be used and identified as unsafe. The controls of any unsafe tools shall be tagged or locked to prevent operation.
c. It is the responsibility of the employee to visually inspect tools and equipment daily for defect or conditions that could cause injury before attempting to use them.
d. Proper PPE shall be worn when using tools and equipment. Refer to the PERSONAL PROTECTIVE EQUIPMENT section.
e. Use the proper tool for the job/task and use tools to perform only intended work. Should a question arise as to what tools or equipment to use, the employee will contact supervisor for guidance.
f. Notify supervisor immediately if any tool is found to be defective or not in safe condition.

4.0 PROCEDURE

4.1 HAND TOOLS

a. Use the correct tool for the job/task.
b. Tools should be inspected prior to use.
c. Tools with defects that make them unsafe are not to be used. The tools should be repaired by qualified personnel or replaced. Common examples of this are mushroomed heads on chisels and hammers, split handles, worn screwdriver blades, etc.
d. Cheater bars or hammers should not be used on adjustable wrenches.
e. Pipe wrench jaws should be kept sharp and in good condition.
f. Extreme caution should be used when working with knife-edges or sharp objects.
g. Never carry knives/sharp objects in your pocket.
h. Modifications are not to be made to any tools.
i. Tools should be carried in tool pouches or toolboxes.
j. Never use wrenches, screwdrivers, chisels, etc. as levers or pry bars.
k. Cutting tools should be kept sharp.
l. Tools should be cleaned and properly stored at the end of use or the end of the shift.

4.2 ELECTRIC POWER TOOLS

a. All electric tools will be safely grounded when in use.
b. Cords of power tools should be inspected prior to use. Any tools with damaged or defective cords shall be tagged and removed from service immediately.
c. Do not remove any guards from electric power tools.
d. Disconnect the tools from the power supply before attempting to repair or adjust it.
e. Extension cords should be strung overhead to avoid tripping hazards.
f. Use only those power tools that you are qualified to use. If any questions/issues arise concerning the safety of power tools, contact your supervisor.

4.3 GRINDERS AND BUFFERS

a. Grinders and buffers must be equipped with the proper guards and handles. Tool rests on pedestal grind wheels should be adjusted to within 1/8" of the wheel.
b. Never use a grinding wheel that is rated at fewer RPM than the driver.
c. Never use a grinding wheel that has a hole larger that the arbor of the driver.
d. Gloves and hanging sleeves should never be worn when operating grinders, buffers, drill presses or other rotating tools.
e. Long hair and beards must be protected when working around rotating machinery.
f. Work must be securely held/clamped in place.
g. Faceshields or goggles must be worn when using any chip producing tools.

h. Grinding wheels must be kept properly dressed at all times. Cracked, defective or dropped grinding wheels should be discarded and replaced immediately.
i. Grinders and buffers must be electrically disconnected before changing wheels or any adjustment.

4.4 Machine Tools

a. Machine tools are to be operated by qualified employees only.
b. Never remove any safety guards.
c. All drill press and radial drill work pieces must be securely bolted or clamped to the table.
d. A brush or stick should be used to remove metal cuttings.
e. Chuck keys and wrenches are not to be left in drill or lathe chucks, in spindles or pipe machines.
f. Long hair and beards must be properly protected when working with machine tools.
g. Gloves and long/baggy sleeves should not be worn when operating machine tools.
h. All machine tools should be electrically disconnected before performing maintenance on them or adjusting them.
i. Never leave machine tools running when not in use.

4.5 Hoisting Equipment

a. Inspect all hoisting equipment prior to use.
b. Never exceed the rated capacity of blocks, slings, cables, ropes or other hoisting equipment.
c. Never lift a load with the tip of the load chain hook.
d. The load chain on chain falls should never be run “full out”. This makes the load totally dependent on the bolt holding the dead end of the chain.
e. Suspended loads should not be left on chain hoists any longer than necessary.
f. Use clevises in the end of slings whenever practical.
g. The pull of a clevis must always be from pin to eye and not from side to side.
h. Do not shorten chain slings by twisting or tying knots in them.
i. Never add two or more slings together by threading the eyes. Use clevises to connect slings or use a longer sling.

4.6 Powder Actuated Tools

a. Never place your hand or fingers over the front muzzle end of the tool.
b. Never carry fasteners or other hard objects in the same pocket or container with powder loads. The loads could be set off, causing serious injury or death.
c. Never fire into very hard or brittle materials such as cast iron, tile, glass, or rock. These materials can shatter, causing sharp fragments and/or the fastener to fly freely. Never fasten into soft materials such as drywall.
d. Always hold the tool perpendicular to the work surface to avoid serious injury or death from ricocheting fasteners. Use the spall guard whenever possible.
e. Always post warning signs when powder actuated tools are in use. Signs should state "Powder Actuated Tool in Use" and should be located within 50 feet of the area where tool is being used.
f. Operators and bystanders must wear PPE at all times. Serious eye injury and hearing loss can result if proper PPE is not worn.
g. Make sure you use the correct powder load for your particular application.
h. Never fire a powder actuated tool in an explosive or flammable environment.

Vehicle and Motorized Equipment Safety

1.0 PURPOSE

The purpose of this section is to establish the requirements for the safe operation of vehicles and motorized equipment.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 PROCEDURE

a. All equipment and/or motor vehicles shall only be operated by authorized employees.
b. All equipment must be inspected daily before use by the operator. Documented and inspections completed at 30-day intervals with proper documentation shall be maintained by Watertap Inc, or contractor.
c. Defective equipment shall be repaired or removed from service immediately.
d. All operators of construction equipment should be properly licensed and certified by a competent person.
e. Only authorized employees are permitted to operate Watertap Inc vehicles.
f. Vehicles used to transport employees shall have seats firmly secured and adequate for the number of employees to be carried and all passengers shall be properly seated with seat belt used. Standing/kneeling on the back of moving vehicles is prohibited.
g. Locations for storage of all fuels, lubricants, starting fluids, etc., shall be reviewed by Watertap Inc for storage and shall conform to the requirements of the NFPA as well as the local Fire Marshal.
h. Where required, contractors shall provide equipment diapers to protect from environmental spills.
i. Drivers of motor vehicles shall have a valid state driver's license (CDL when applicable) and be instructed to exercise judgment as well as observe posted speed limits safe distance between vehicles.
j. Drivers of motor vehicles shall not operate the vehicle while under the influence of alcohol, illegal drugs medications.
k. All means of ingress and egress shall be adequately marked and kept clear of stored material, debris, and equipment.
l. Pedestrians always have right-of-way over motorized traffic.
m. Horns shall be sounded at blind corners, when passing, and/or for warning.
n. Established hand signals or turn signals are to be used.
o. Reckless driving or other non-observance of these instructions will be cause for withdrawal of driving privileges on the project.
p. Any ATV's used on the project shall be "four"- wheeled, not three-wheeled.
q. All vehicles permitted access to project premises must display an appropriate vehicle identification badge from the rear-view mirror or other conspicuous location at all times while on the project.
r. Seat belts shall be worn by all employees operating motor vehicles and any equipment with rollover protection structures during performance of work.
s. Properly trained and equipped flag persons shall be used whenever construction traffic accesses or exits from public highways as well as when construction traffic and deliveries interfere with the planned flow of traffic on public highways.
t. Drivers shall report any traffic violations and/or vehicle accidents to their immediate supervisor.
u. Loads shall be secured and within the manufacturer's legal limits.
v. Cell phone use is prohibited while operating motorized vehicles.
w. Vehicles, or equipment, shall be the correct size and designed for intended use.
x. All mobile equipment shall have operable, audible back up alarms.

4.0 ATTACHMENT

a. Attachment 37 – Mobile Equipment Inspection Checklist

Vehicle and Motorized Equipment Safety
Powered Industrial Trucks

1.0 PURPOSE

The purpose of this section is to establish the requirements for the safe operation of powered industrial trucks (forklifts).

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 GENERAL

a. Powered Industrial Trucks are commonly referred to as forklifts or lift trucks.
b. Powered Industrial Trucks are generally steered by the rear wheels and steer more easily when loaded.
c. Powered Industrial Trucks can be either ridden by the operator or controlled by a walking operator and are often steered with one hand – the other hand is used to operate the controls.
d. There are seven (7) classes of Powered Industrial Trucks:
   - **Class 1** – Electric Motor Rider Trucks
   - **Class 2** – Electric Motor Narrow Aisle Trucks
   - **Class 3** – Electric Motor Hand Trucks or Hand/Rider Trucks
   - **Class 4** – Internal Combustion Engine Trucks (Solid/Cushion Tires)
   - **Class 5** – Internal Combustion Engine Trucks (Pneumatic Tires)
   - **Class 6** – Electric and Internal Combustion Engine Tractors
   - **Class 7** – Rough Terrain Forklift Trucks
e. Powered Industrial Trucks are only to be operated by trained and authorized personnel. Operators shall only operate the class of Powered Industrial Truck for which they are certified.

4.0 PROCEDURE

4.1 BASIC OPERATING RULES

a. Operator must verify trailers, chocks, supports and dock plates prior to loading/unloading.
b. No person shall be allowed to pass or stand under the elevated portion of any truck.
c. Material handling equipment shall not be loaded beyond its rated capacity.
d. Tag lines shall be used on all suspended loads that are liable to swing.
e. Unauthorized personnel shall not be allowed to ride on industrial trucks.
f. The swing of the rear of the truck must always be carefully watched.
g. The truck must be operated at a safe rate of speed.
h. Operators should look in the direction of travel and maintain a clear view.
i. Operators should stop at blind corners and before going through doorways.
j. Bridge plates at loading docks must be properly secured before entering the trailers.
k. Trailers should have their wheels chocked before loading or unloading.
l. The lift truck driver should inspect the wheel chocks personally.
   - The operator should leave the truck only if the controls are in neutral, the power shut off, brakes set, and the load is lowered to ground level.
   - Loads should be stabilized (neatly piled, cross-tied or shrink-wrapped).
   - Loads should not be raised or lowered en route.
   - Loaded or empty, the forks should be carried as low as possible, but high enough not to strike any raised or uneven surface.
   - Tilting back the upright keeps the load steady and secure.
   - The truck should be driven backward if the load is obstructing the view. g. Gears should be used when descending a grade.
   - Low placing extra weight on the rear of a lift truck to counterbalance a load is prohibited.
   - A 10' minimum clearance shall be maintained between hauling equipment and power lines.

4.2 LIQUIFIED PETROLEUM (L-P) GAS TRUCKS

a. Storage of fuel containers must be outside.
b. The container shutoff valve must be closed after the shift or the vehicle is out of service.
c. After changing fuel containers, the driver should check for leaks.
d. A properly adjusted engine burning L-P gas will generally produce a substantially lower concentration of carbon monoxide.
e. If the carbon monoxide concentration is suspicious, air monitoring will be utilized. The ACGIH TLV is 50 PPM of carbon monoxide for eight-hour exposure.

4.3 TRAINING

a. Only authorized and trained personnel should be permitted to operate a Powered Industrial Truck.
b. Training will be provided by a qualified instructor; a person with the knowledge, training and experience to effectively train operators and evaluate their competence.
c. Training programs include formal instruction, practical training, and operator evaluation in the workplace. Operator cards will be issued to employees that pass the written exam.
d. Training content to include load capacity, instructions, distances, refueling, ramps, visibility and balancer, and counterbalances.
e. All new operators will receive the basic operator's course before operating a lift or industrial truck. The content of the course will comply with OSHA 1910.178.
f. All operators will be given a refresher course every three years.
g. Any operator observed driving a Powered Industrial Truck unsafe, lifting a load unsafe or involved in an accident or near miss will be retrained.
h. Powered Industrial Trucks operators are required to be trained in accordance with standard 1910.178(l).

4.4 INSPECTION AND MAINTENANCE

a. The following areas of the Powered Industrial Trucks will be inspected daily and at the start of each shift by the operators:
   - Controls
   - Brakes
   - Tires
   - Other moving parts
b. Maintenance inspections will be performed on the Powered Industrial Trucks on a regular monthly basis. Inspect route of travel before using route with fork truck.

5.0 ATTACHMENT

a. Attachment 37 – Mobile Equipment Inspection Checklist

Safety Forms

Accident Report

Project Name _____ Project Number _____

Prepared By _____ Date _____

Report Number _____ Type ☐ First Aid Only ☐ Recordable Injury ☐ Lost Time Injury ☐ Fatality
(PROJECT # - CASE # - YEAR)

Date of Injury _____ Time of Injury _____ ☐ AM ☐ PM Time Reported to Supervisor _____ ☐ AM ☐ PM

Injured Person's Name _____ _____ _____
Last First MI

Home Address _____ _____ _____ _____
Street City State Zip Code

Phone _____ DOB _____ Gender _____ SSN (Last 4) _____

Occupation _____ Is employer Watertap Inc? ☐ Yes ☐ No Years Employed _____

*If **not** a Watertap Inc employee*

Employer _____

Address _____ _____ _____ _____
Street City State Zip Code

Supervisor _____ Phone _____

Witness Name _____ _____ _____
Last First MI

Phone _____ Employer _____

Witness Name _____ _____ _____
Last First MI

Phone _____ Employer _____

Witness Name _____ _____ _____
Last First MI

Phone _____ Employer _____

Specific Location of Accident/Injury

_____

_____

Description of Accident

_____

_____

_____

_____

_____

_____

_____

_____

Disposition ☐ Regular Work ☐ Restricted Work ☐ Lost Time ☐ Hospital

Number of Restricted Workdays _____ Return to Regular Work Date _____

Number of Lost Time Days _____ Return to Light Duty Date _____

ACCIDENT REPORT

Medical Facility Name _____ **Type** ☐ Hospital ☐ Urgent Care

Address _____ _____ _____ _____
Street City State Zip Code

Attending Physician's Name _____ **Phone** _____

Type of Injury/Illness (check all that apply)

☐ Abrasion	☐ Cardiovascular	☐ Exposure - Radiation	☐ Repetitive Motion
☐ Allergic Reaction	☐ Concussion	☐ Eyes - Misc.	☐ Splinter
☐ Amputation	☐ Contusion (Bruise)	☐ Fracture	☐ Sprain (Joint)
☐ Animal Bite	☐ Crush	☐ Hearing Loss - Temporary	☐ Sting/Insect Bite
☐ Asphyxiation	☐ Dermatitis	☐ Hernia	☐ Strain
☐ Blister	☐ Dislocation	☐ Laceration	☐ Temperature (Hot/Cold)
☐ Blurred Vision	☐ Electrocution	☐ Poisoning	☐ Vision Loss, Temporary
☐ Burns	☐ Exposure - Chemical	☐ Puncture	☐ Unclassified

Body Part Injured (check all that apply)

☐ Ankles, Feet, Toes	☐ Eyes	☐ Head	☐ Neck
☐ Arms	☐ Face	☐ Hip	☐ Nose
☐ Back	☐ Finger	☐ Internal	☐ Shoulders
☐ Buttocks	☐ Groin	☐ Knee	☐ Torso
☐ Ears	☐ Hand	☐ Legs	☐ Wrist

Injury Mechanism (check all that apply)

☐ Burns	☐ Electrical Shock	☐ Falling Object	☐ Puncture
☐ Caught In/Between	☐ Explosion	☐ Irritation	☐ Reaching
☐ Climbing	☐ Fall - Elevated	☐ Lifting/Handing	☐ Struck Against
☐ Crush	☐ Fall - Same Level	☐ Motor Vehicle	☐ Struck By
☐ Cut	☐ Fall - Climbing	☐ Natural Disaster	☐ Violence

If Employer is ***NOT*** Watertap Inc is the Employer's Accident Report Attached?

☐ Yes ☐ No If no, explain: _____

If recordable injury, is OSHA Form 301 completed and attached?	☐ Yes	☐ No
If severe injury, was OSHA notified within 24 hours of occurrence? *(Inpatient Hospitalization, Amputation, Loss of Eye)*	☐ Yes	☐ No
If fatality, was OSHA notified within 8 hours of occurrence?	☐ Yes	☐ No
Has Site Management and/or Owner's Rep been notified?	☐ Yes	☐ No

Contractor Supervisor _____ _____
Signature Date

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

Distribution: ☐ Project File ☐ Safety Office ☐ Other _____

Incident Report (Non-Injury)

Project Name _____ Project Number _____

Prepared By _____ Date _____

Type ☐ Contractor Property Damage ☐ Owner Property Damage ☐ Other Damage _____

☐ Tool/Equipment Failure ☐ Near-Miss ☐ Other _____

Date Incident _____ Time of Incident _____ ☐ AM ☐ PM Location of Incident _____

Contractor _____

Supervisor _____ Phone _____

Employees Involved

_____

_____

_____

Witnesses

_____

_____

_____

Description of Incident

_____

_____

_____

_____

_____

Property or Personal Losses

_____

_____

_____

Corrective Action(s)

_____

_____

_____

Contractor Supervisor _____ _____
Signature Date

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

Corrective Action(s) completed on Date _____ By _____

Verification of Corrective Action(s) completed on Date _____ By _____

Additional follow-up or preventative action needed? ☐ Yes ☐ No

If yes, explain: _____

Daily Huddle

Project Name _____ Project Number _____

Contractor _____ Date _____

Supervisor _____ Phone _____

Important Items to Address

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Attendees

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Job Safety Analysis (JSA)

Project Name _____ Project Number _____

Prepared By _____ Date _____

Contractor _____ Trade _____

Supervisor _____ Phone _____

Job Description _____

Section A - Task (sequence of steps to complete task)

	Task	Routine Y / N
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Section B - Hazards Associated with Task (check all that apply)

- ☐ Abrasions/Cuts
- ☐ Aerial Lifts
- ☐ Compressed Gas
- ☐ Confined Space
- ☐ Crane/Rigging
- ☐ Electrical Shock
- ☐ Excavations/Trenches
- ☐ Exposure - Chem/Radiation
- ☐ Falling Objects
- ☐ Falls
- ☐ Fire/Explosion
- ☐ Hand/Power Tools
- ☐ Hazardous Energy
- ☐ Hazardous Material
- ☐ Heavy Equipment
- ☐ Ladder Use
- ☐ Material Delivery
- ☐ Material Handling
- ☐ Pinch Points
- ☐ Powder Actuated Tools
- ☐ Public Exposure
- ☐ Respiratory
- ☐ Scaffold
- ☐ Shoring
- ☐ Skin Contact
- ☐ Slips/Trips
- ☐ Strains/Sprains
- ☐ Vehicle Traffic - Jobsite/Public
- ☐ Welding/Burning
- ☐ Other _____
- ☐ Other _____
- ☐ Other _____

Section C - Explain Control Measure for Each Hazard Identified

	Hazard	Control
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Have fall protection anchorage points been identified?

☐ Yes ☐ No ☐ N/A

Explain _____

_____

Work Impact Issues

☐ Public ☐ Other Trades ☐ Facilities ☐ Roads ☐ Environmental ☐ Other _____

Explain _____

_____

Permits Required

☐ Hot Work ☐ Excavation ☐ Critical Lifts ☐ Off Hours

☐ Guardrail Removal ☐ Confined Space ☐ Roof Access ☐ Other _____

Inspection Requirements

☐ Fall Protection ☐ Rigging ☐ Scaffold/Lifts ☐ Ladders ☐ Cranes ☐ Mobile Equipment

Equipment to be used (listed equipment)

_____

_____

_____

_____

_____

_____

Worker Acknowledgment

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Reviewed and Approved By

Project Superintendent _____ _____

Signature Date

Safety Representative _____ _____

Signature Date

Pre-Task Plan (PTP)

Project Name & Location _____ Project Number _____ Date _____

Contractor _____ Prepared By _____ Phone _____

Task Description _____ Start Date/Duration _____

Supervisor _____ Phone _____ Competent Person _____

Required PPE Hard Hat, Safety Glasses, Class 2 Hi-Vis

Special Equipment/Licenses _____

Required Permits

☐ Confined Space ☐ Excavation ☐ Hot Work ☐ Off Hours ☐ Roof Access ☐ Other _____

Work Impact Issues

☐ Environmental ☐ Facilities ☐ Other Trades ☐ Public ☐ Roads ☐ Other _____

Hazards Associated with Task

☐ Abrasion/Laceration	☐ Elevated Work	☐ Hand/Power Tools	☐ Isolated Area	☐ Particles in Eyes
☐ Asbestos	☐ Ergonomics (Strains/Sprains)	☐ Hazardous Chemicals	☐ Ladder	☐ Pinch Points
☐ Burns - Chemical	☐ Excavation/Trench	☐ Hazardous Energy	☐ Lead	☐ Public Exposure
☐ Burns - Hot Work	☐ Equipment Loading/Unloading	☐ Hazardous Material	☐ Lifting - Manual	☐ Scaffold
☐ Chemical Exposure/Spill	☐ Fall from Heights	☐ Heat Exhaustion/Stress	☐ Lifting - Rigging	☐ Silica
☐ Compressed Gas	☐ Falling Objects	☐ Heavy Equipment	☐ Lockout/Tagout	☐ Traffic - Jobsite
☐ Confined Space	☐ Falls (Slips/Trips)	☐ Hot Work (Weld/Torch/Cut/Grind)	☐ Material Handling	☐ Traffic - Pedestrian/Vehicles
☐ Crane	☐ Fire/Explosion	☐ Inadequate/Limited Access	☐ Mobile Equipment	☐ Other _____
☐ Electrical Shock	☐ Flying Debris	☐ Inhalation Hazard	☐ Noise Exposure	☐ Other _____

Emergency Contacts

Watertap Inc

Name & Title _____ Phone _____

Name & Title _____ Phone _____

Name & Title _____ Phone _____

General Contractor –

Name & Title _____ Phone _____

Name & Title _____ Phone _____

Pre-Task Plan (PTP)

Project Name & Location _____ Project Number _____ Date _____

Contractor _____ Supervisor _____ Phone _____

Task Description _____ Competent Person _____

Project Step	Hazards or Unsafe Conditions	Control Methods or Preventative Actions
Before start of job, review Pre-Task Plan (PTP) with all workers/employees involved. If work task changes, STOP and re-evaluate in field. Make handwritten changes to PTP. Review changes with all workers/employees.	Lack of understanding of job and safety requirements. Lack of planning for safety needs. All hazards listed in this PTP	· All workers will review and sign this PTP prior to starting of job. · All workers must attend site orientation prior to starting work. · All workers will review emergency procedures. · In the event of emergency, **CALL 911** Contact Watertap Inc - Superintendent & Safety · All accidents, incidents, and near-misses must be reported immediately to Watertap Inc - Superintendent & Safety

Pre-Task Plan (PTP)

Project Name & Location _____ Project Number _____ Date _____

Contractor _____ Supervisor _____ Phone _____

Task Description _____ Competent Person _____

Project Step	Hazards or Unsafe Conditions	Control Methods or Preventative Actions

Pre-Task Plan (PTP)

Project Name & Location _____ Project Number _____ Date _____

Contractor _____ Supervisor _____ Phone _____

Task Description _____ Competent Person _____

All employees must sign daily as acknowledgement they have reviewed and agreed to conduct their work safely in accordance with this PTP (including hazards/unsafe conditions and applicable control methods/preventative actions).

Date: _____

Print Name	Signature

Print Name	Signature

Safety Inspection Checklist

Project Name _____ Project Number _____

Inspected By _____ Date _____

✓ = PASS X = FAIL n/a = Not Applicable

General

- ☐ Posters and safety signs/warnings posted
- ☐ Safety meetings held periodically
- ☐ First-aid kit available and properly stocked
- ☐ Job related safety training
- ☐ Accident reporting procedures established
- ☐ Substance abuse policy in place
- ☐ Injury records being kept
- ☐ Traffic routes identified
- ☐ New employee orientation completed
- ☐ PTPs/JSAs, Daily Huddles, and Toolbox Talks completed
- ☐ Daily tool/equipment and weekly site inspections completed
- ☐ Weekly site inspections and Toolbox Talks completed
- ☐ Emergency evacuation plan communicated and posted
- ☐ Safety plan on-site and readily available

Environmental

- ☐ Proper postings in temporary waste area
- ☐ Certified shipper and ultimate disposal site
- ☐ Proof of insurability of transporter
- ☐ Container integrity and packaging
- ☐ Proper marking and labeling
- ☐ Inspection procedures in place
- ☐ Workers have appropriate and required training
- ☐ Waste storage and area fence integrity and locked

Hazard Communication/Right to Know

- ☐ Written program in place
- ☐ SDS on file or available
- ☐ Control and disposal measures established
- ☐ Material properly stored and legibly labeled
- ☐ Log of all chemicals on-site
- ☐ Employees trained in Hazard Communication and GHS
- ☐ Employees current with Asbestos, Lead, and Silica training

Personal Protective Equipment (PPE)

- ☐ Hazard evaluation completed and certified
- ☐ PPE adequate for exposure
- ☐ Employees issued PPE when/where needed or required
- ☐ Employees trained in use of PPE
- ☐ PPE inspected before and after use
- ☐ Adequate fall protection provided
- ☐ Eye and face protection used
- ☐ Hand protection used
- ☐ Hearing protection used
- ☐ Respirators/masks worn

Orderliness and Material Storage

- ☐ General orderliness
- ☐ Regular disposal of waste and trash
- ☐ Trash containers
- ☐ Nails removed or bent down
- ☐ Spill cleaned up promptly
- ☐ Drinking water available
- ☐ Sanitary facilities adequate and maintained
- ☐ Fire lines maintained
- ☐ Ingress/Egress maintained - marked and clear of obstacles
- ☐ Correct use of material handling equipment
- ☐ Dust protection

Fire Prevention/Protection

- ☐ Adequate number and type of extinguishers available
- ☐ Fire extinguishers training completed
- ☐ Phone numbers of fire department posted
- ☐ Fire extinguishers provided on appropriate equipment
- ☐ Flammable liquids properly stored and labeled
- ☐ Combustibles properly stored and labeled
- ☐ Fuel supplies protected from impact
- ☐ Fire extinguisher 25ft to 75ft away from bulk fuel storage
- ☐ Approved containers for fuel storage
- ☐ Equipment shut down prior to fueling
- ☐ "No Smoking" signs posted and enforced

Hand/Power Tools

- ☐ Proper tools used as needed for each task
- ☐ Tools used correctly
- ☐ Tools and cords inspected and in good condition
- ☐ Tools stored properly and maintained
- ☐ Tools and cords properly grounded or double-insulated
- ☐ Operator qualified and trained
- ☐ Operator wearing appropriate PPE
- ☐ Adequate protection for nearby individual
- ☐ Guards operable and in place
- ☐ Tools protected from unauthorized use
- ☐ Defective or damaged tools removed until repaired

Mobile Equipment

- ☐ Operator has current license/training
- ☐ Daily, documented inspections
- ☐ All alarms, lights, horns, etc. working properly
- ☐ PITs - Seatbelts used
- ☐ Escorts/Spotters used, as needed
- ☐ Spill kit on-site

Safety Inspection Checklist

Cranes and Rigging
☐ Rented cranes inspected and deficiencies corrected
☐ Operators properly trained and licensed
☐ Crane load/lifting chart in cab and legible
☐ Tag lines used when required
☐ Equipment firmly supported
☐ Outriggers fully suspended
☐ Signal person working as instructed and properly trained
☐ Inspection and maintenance logs maintained
☐ Swing radius is barricaded
☐ Rigging equipment (chokers, slings, shackles, etc.) inspected
☐ Rigging equipment stored properly and maintained
☐ Nearby power distribution de-energized, proper clearances maintained

Lockout/Tagout
☐ No broken valve hand wheels, controls, or switches
☐ All control valves and switches are labeled
☐ Each authorized employee has locks & tags
☐ Locks & tags standardized throughout facility
☐ Locks & tags identifiable to a specific employee
☐ Locking tags available for every type of isolation device
☐ All circuit breakers labeled
☐ Only authorized employees may attach a lock & tag
☐ Only person who attached lock & tag can remove it
☐ Isolation must be verified before beginning work
☐ Notify employees before locking our equipment

Confined Space Procedure
☐ Confined space entry training conducted
☐ Signs posted to identify confined spaces
☐ PPE specified and being worn
☐ Standby person available and properly trained
☐ Permit required precautions taken
☐ All required signatures for entry/testing on hand
☐ Permits posted prior to start of work
☐ Air monitored and recorded
☐ Proper emergency equipment for attendant and inspected
☐ Daily PTAs/JSAs and inspections completed

Excavations
☐ Type of soil identified
☐ Sloped or benched properly
☐ Spoils, materials, etc. at least 2 feet from edge
☐ Exits within 25 feet of employees
☐ Ladders secured and extended 3 feet above edge
☐ Utilities located, marked, etc.
☐ Adequate signs posted and barricades maintained
☐ Air tested and proper ventilation, if necessary

Ladders
☐ Visual inspection before and after use
☐ Proper ladder used; type and duty rating
☐ Legible identification tags attached to ladder
☐ Ladders clear of debris and/or slippery substances
☐ Ladders at 4:1 angle, and extend 3' above working levels
☐ Proper ladder use; 3-points of contact, not overextended
☐ Ladders secured and/or ground person used
☐ Fall protection available and in use
☐ Ladders stored properly, away from jobsite traffic

Abatement for hazards or other safety issues observed

Safety Violation Form

INDIVIDUAL SAFETY AND WORK RULES OFFENSE WARNING

The following warning issued today is to be made part of the office jobsite record and the HR personnel record.

Employee _____ **Date of Offense** _____

Project Name _____ **Project Number** _____

Offense:

- ☐ Not wearing hard hat or eye protection
- ☐ Not wearing or using safety harness
- ☐ Not wearing or using respirator
- ☐ Unsafe use of equipment and/or tools
- ☐ Disabling safety device(s) or guard(s)
- ☐ Throwing material from building
- ☐ Housekeeping
- ☐ Violation of safety rules
- ☐ Consuming or reported under the influence of alcohol or substance (unknown, unauthorized, or illegal) during work hours
- ☐ Not abiding by company work rules
- ☐ Horseplay
- ☐ Harassment of other workers
- ☐ Fighting on the premises
- ☐ Other _____
- ☐ Other _____

Description of Offense

_____

_____

_____

Previous Warnings

	Oral	Written	Date	Reason	By Whom
1st Warning	☐	☐	_____	_____	_____
2nd Warning	☐	☐	_____	_____	_____
3rd Warning	☐	☐	_____	_____	_____

Corrective Action(s)

☐ Retraining ☐ Warning ☐ Probation ☐ Suspension ☐ Termination ☐ Other _____

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

I, _____, understand safety rules and safe work practices are necessary to reduce accidents and injuries on the job. They are put in place to protect not only myself but my fellow workers. By signing this form, I acknowledge and fully admit fault to the violation(s) as specified above. I understand violation of any rule is grounds for disciplinary action including termination.

Employee _____ _____
Signature Date

Notice to Comply

Project Name _____ Project Number _____

Prepared By _____ Date _____

Contractor _____

Employee(s) _____

Supervisor _____ Phone _____

Type ☐ PPE (missing, worn incorrectly, damaged) ☐ Unsafe use tools/equipment ☐ Housekeeping ☐ Not following JSA/PTP
☐ Substance Abuse ☐ Fighting/Harassment ☐ Other _____

Description of Noncompliance

_____

_____

_____

Previous Warnings

	Oral	Written	Date	Reason	By Whom
1st Warning	☐	☐	_____	_____	_____
2nd Warning	☐	☐	_____	_____	_____
3rd Warning	☐	☐	_____	_____	_____

Corrective Action(s)

☐ Retraining ☐ Warning ☐ Probation ☐ Dismissal

☐ Revised Work Practice(s) _____

☐ Personnel Change _____

☐ Other _____

Contractor Supervisor _____ _____
Signature Date

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

Corrective Action(s) completed on Date _____ By _____

Verification of Corrective Action(s) completed on Date _____ By _____

Additional follow-up or preventative action needed? ☐ Yes ☐ No

If yes, explain: _____

Notice of Safety Violations

Project Name _____ Project Number _____

Contractor _____ Date _____

Supervisor _____ Phone _____

The following safety violations were observed during work under your control.

All items must be corrected by _____

	Description	Employee(s) Involved
1.		
	Previous Occurrences ☐ Yes ☐ No	
2.		
	Previous Occurrences ☐ Yes ☐ No	
3.		
	Previous Occurrences ☐ Yes ☐ No	
4.		
	Previous Occurrences ☐ Yes ☐ No	
5.		
	Previous Occurrences ☐ Yes ☐ No	

Contractor Supervisor _____ Signature _____ Date

Project Superintendent _____ Signature _____ Date

Safety Representative _____ Signature _____ Date

First-Aid Kit Inspection Checklist

Project Name _____ Project Number _____

Contractor _____ Supervisor _____

Month/Year _____

NOTE: Refer to Watertap Inc Corporate Safety and Health Manual or ANSI Z308.1-2015 for minimum size/volume of each item.

✓ each item if adequate amount in first-aid kit.
Record quantity needed for insufficient items.

First-Aid Supply	Minimum Quantity		Inspected By / Week Ending				
	Class A Kits	Class B Kits					
Adhesive Bandage	16	50					
Adhesive Tape	1	2					
Antibiotic Application	10	25					
Antiseptic	10	50					
Breathing Barrier (CPR Mask)	1	1					
Burn Dressing (gel soaked)	1	2					
Burn Treatment	10	25					
Cold Pack	1	2					
Eye Covering w/ means of attachment	2	2					
Eye/Skin Wash	1						
		1					
First Aid Guide	1	1					
Hand Sanitizer[5]	6	10					
Medical Exam Gloves	2 pair	4 pair					
Roller Bandage, 2-inch	1	2					
Roller Bandage, 4-inch	0	1					
Scissors	1	1					
Splint	0	1					
Sterile Pad	2	4					
Tourniquet	0	1					
*Inspector's Initial upon completed inspection **and** corrected deficiencies*							

Deficiencies or Comments _____

Exposure Incident Report

Project Name _____ Project Number _____

Prepared By _____ Date _____

Contractor _____

Supervisor _____ Phone _____

Date Incident _____ Time of Incident _____ ☐ AM ☐ PM Location of Incident _____

Employees Involved

_____ _____

_____ _____

Potentially Infectious Materials Involved

Type _____

Source _____

Circumstances _____

How was incident caused (accident, equipment malfunction, etc.)

_____

_____

Personal protective equipment used

_____

_____

Action Taken (decontamination, clean-up, reporting, etc.)

_____

_____

_____

Recommendations for avoiding repeat occurrence

_____

_____

_____

Contractor Supervisor _____ _____
Signature Date

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

Additional follow-up or preventative action needed? ☐ Yes ☐ No

If yes, explain: _____

Bloodborne Pathogen Training Acknowledgement

I, the undersigned, acknowledge that I have received training in and understand the topics listed below:

- Exposure Control Plan
- All bodily fluids are to be treated with Universal Precautions
- Safety practices to use for Universal Precautions
- The epidemiology and symptoms of Bloodborne Pathogens
- The modes of transmission of Bloodborne Pathogens
- Tasks and activities that may involve exposure to Bloodborne Pathogens and other potentially infectious materials
- The use and limitation of work practices, engineering controls, and PPE to prevent or reduce exposure to Bloodborne Pathogens or other potentially infectious materials
- Types, selection, proper use, removal, handling, decontamination and/or disposal of PPE
- Location of PPE
- Actions to be taken in an emergency/exposure event
- Actions to be taken if an exposure incident occurs and the policy if such an incident occurs

Employee Name	Employee Signature	Date

Hepatitis B Vaccine Form

General Information

Hepatitis B is an infection of the liver caused by the Hepatitis B virus. The virus is found in blood and other body fluids. In the workplace, the disease can be contracted through needlesticks or other punctures, through open wounds, or breaks in the skin, or through splashes of body fluids to mucous membranes. Hepatitis B can disable a person for week or months and lead to complications. Some people who get infected with the Hepatitis B virus become chronic carriers capable of spreading the disease to others. This group usually has the greatest potential for developing long-term complications, such as chronic active hepatitis, chronic persistent hepatitis, cirrhosis, and primary cancer of the liver.

Hepatitis B Vaccine

There are three (3) Hepatitis B Vaccines available in the United States. All three (3) vaccines contain recombinant Hepatitis B surface antigen and are safe and effective for the use of Hepatitis B prevention. Recombinant vaccines are non-infectious viral vaccine produced in yeast cells and are not manufactured from any blood products. There have been no documented cases of anyone acquiring Hepatitis B from the vaccine. One out of every twenty (20) individuals who successfully complete this series of injections will fail to achieve immunization status. In this case, you would not be protected against the Hepatitis B virus infection.

The Hepatitis B Vaccine is administered in a series of three (3) injections:

- 1st Injection – At elected date
- 2nd Injection – 1 month after 1st injection
- 3rd Injection – 6 months after 1st injection

Prior to receiving the 1st injection, you will be screened for the presence of the Hepatitis B antibody. If you are found to be positive for the Hepatitis B antibody, you need do not need to undergo the injection series.

Contraindications and Adverse Reactions

In general, the Hepatitis B Vaccine is well tolerated. However, as with any vaccine or medication allergic reaction and side effects can occur, and precautions should always be taken.

a. *Allergies and Hypersensitivity* – people who are allergic or have hypersensitivity to yeast products should consult their physician prior to consenting to the vaccination program. People who develop symptoms suggestive of hypersensitivity after an injection should discontinue the series and end their continuation of the vaccination program.

b. *Precautions* – the Hepatitis B Vaccine should not be given, unless recommended by a personal physician, to the following:
   - Persons with active serious infections
   - Pregnant women
   - Nursing mothers
   - Persons with Multiple Sclerosis (MS)

c. *Adverse Reactions/Side Effects* – as with any vaccine or other medications, there is a possibility of side effects and adverse reactions.
   - Swelling, pain, tenderness and reddening/bruising at the injection site
   - Most frequent reactions include: Fatigue, headache, fever, weakness, malaise, sweating, achiness, lightheadedness, chills
   - Other reactions include: nausea, diarrhea, abdominal pain/cramps, indigestion, diminished appetite, pharyngitis (sore throat), upper respiratory infection, rhinitis (nasal congestion), influenza, cough, dizziness, tingling and/or numbness, itching, rash, hives, joint and muscle pain/stiffness, earache, painful or infrequent urination, earache, hypotension, insomnia, and disturbed sleep.

I understand that due to my occupational exposure to blood or other potentially infectious materials, I may be at risk of acquiring Hepatitis B Virus (HBV) infection. I have been given the opportunity to be vaccinated with the Hepatitis B Vaccine, at no charge to myself.

☐ CONSENT

I have read the information contained herein and consent to begin the Hepatitis B vaccination program.

☐ DECLINE

I have read the information contained herein and decline to participate in the Hepatitis B vaccination program at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious liver disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with the Hepatitis B Vaccine, I can receive the vaccination series at no charge to myself.

Employee Name	Employee Signature	Date
Witness Name	Witness Signature	Date

Physician's Opinion

Employee Name _____ _____ _____
Last First MI

Date of Evaluation _____

☐ Yes	☐ No	1.	Hepatitis B vaccination indicated
☐ Yes	☐ No	2.	Employee received Hepatitis B vaccination
☐ Yes	☐ No	3.	Employee informed of evaluation results
☐ Yes	☐ No	4.	Employee informed of any medical conditions resulting from exposure to blood or other potentially infectious materials that require further evaluation

All other findings will be kept confidential

Examining Doctor

_____ _____ _____
Print Signature Date

Medical Facility Name _____

Address _____ _____ _____ _____
Street City State Zip Code

Hazard Communication: List of Hazardous Chemicals

Project Name _____ Project Number _____

Contractor _____ Date _____

Prepared By _____ Supervisor _____

If NO for any chemical listed, a copy of the SDS needs to be obtained and copy kept on-site

Chemical Name	Common Name	Responsible Contractor or Trade	SDS (Yes or No)

Hazard Communication: Inspection Log

Project Name _____ Project Number _____

Contractor _____ Supervisor _____

✓ = Good x = No Good n/a = Not Applicable *Any unacceptable items, complete and attach inspection form with details.*

Inspection Month	Lids and Labels	Evidence of Spills	Alarms or Sensors	New Products	Spill Kits	Storm Drains	Items Fixed	Inspector Initials
Year:								
January								
February								
March								
April								
May								
June								
July								
August								
September								
October								
November								
December								
Year:								
January								
February								
March								
April								
May								
June								
July								
August								
September								
October								
November								
December								

Hazard Communication Inspection Form

Project Name _____ Project Number _____

Prepared By _____ Date _____

Contractor _____ Supervisor _____

Yes No

☐ ☐ **Lids and Labels**

1. Have all lids and caps been returned to their proper container?
2. Do all containers have labels?

*If **NO** to either question above, these items need to be addresses/abated immediately.*

☐ ☐ **Evidence of Spills**

1. Is there any indication a spill might have occurred? If so, was the spill properly cleaned up?
2. Were any spill kit materials used?
3. Was the Spill Log filled out for the incident?
4. Were there any housekeeping issues?

☐ ☐ **Alarms or Sensor Issues (Tanks with alarm systems ONLY)**

1. Have any alarm conditions existed in the past month?
2. Have any alarms occurred? If so, has the monitoring system been serviced by the manufacturer or authorized service company?
3. Is the system up and currently working?
4. Is the sensor working?
5. Was a test conducted of the alarm and the sensor?
6. When was the sensor last serviced?

☐ ☐ **New Hazardous Materials**

1. Have any new chemicals or substances been purchased?
2. Has the SDS for the new product(s) been obtained?
3. Has the safe storage and handling of the new product(s) been assessed?
4. Has the List of Hazardous Chemicals been updated?
5. Do the container(s) of the new product(s) have proper labeling?

☐ ☐ **Spill Kit**

1. Have any spill kit items been used?
2. Are any items missing from the spill kit? If so, is there an associated entry in the Spill Log and/or is the item on order?
3. Is the spill kit stored in its designated location?
4. Are employees aware of the designated location of the spill kit and is it easily accessible?
5. Is there a sufficient supply of daily cleanup materials?

☐ ☐ **Storm Drains**

1. Is there a buildup of sediment in the drain traps?
2. Is there any evidence of drain clogging?
3. Are the drain filters still intact?
4. Do any of the drains need to be replaced or have any drains been replaced?

☐ ☐ **Items Fixed**

1. Have all deficiencies previously noted been fixed or made acceptable?

List any issues, deficiencies, or failures

_____

_____

_____

HAZARD COMMUNICATION: SPILL LOG

Project Name ______________________________ Project Number ____________________

Contractor ______________________________ Supervisor ______________________________

Date	Location	Size (Gallons)	Preventative Measures Taken	Spill Kit Materials Reordered	Spill Kit Adequate List any deficiencies	Initials

Confined Space Entry Permit

Project Name _____ Project Number _____

Date _____ Time of Entry _____ ☐ AM ☐ PM Time Permit Expires _____ ☐ AM ☐ PM

Contractor _____ Location _____

Supervisor _____ Phone _____

Task _____

Previous Contents of Confined Space _____

Any Hazardous Materials or Fumes Generated by Work (NEED SDS) _____

_____

Confined Space Preparation Requirements

	Yes	No	N/A	Supervisor Initials	Safety Rep Initials
Drain, flush, and clean	☐	☐	☐	_____	_____
Lock, tag, and verify	☐	☐	☐	_____	_____
Disconnections	☐	☐	☐	_____	_____
Blank lines	☐	☐	☐	_____	_____
Open manholes	☐	☐	☐	_____	_____
Forced ventilation	☐	☐	☐	_____	_____
Agitator out of service	☐	☐	☐	_____	_____
Radioactive sources removed or shielded	☐	☐	☐	_____	_____
GFCI on voltages >12V	☐	☐	☐	_____	_____
Lifeline and harness available for entry	☐	☐	☐	_____	_____
30-minute air-pack or air-supplied respirator available	☐	☐	☐	_____	_____
Hot Work Permit	☐	☐	☐	_____	_____
Fire Extinguisher	☐	☐	☐	_____	_____

Atmospheric Analysis Results

Tester Initials _____

Oxygen, O_2 19.5 % - 22.5%	Carbon Monoxide, CO 25 – 50 PPM	Carbon Dioxide, CO_2 5,000PPM	Hydrogen Sulfide, HS 1.0 – 5.0 PPM	%LEL, Explosivity <10% cold, <0% hot	Other Specify

Persons Entering

_____ _____

_____ _____

Standby Person(s)

_____

_____

Rescue Provided By

_____

_____

Approved By

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

Confined Space Entry Atmospheric Testing Log

Project Name _____ Project Number _____ Date _____

Contractor _____ Supervisor _____ Tester _____

Location of Confined Space _____

Testing Frequency ☐ Continuous ☐ 1 Hour ☐ 2 Hours ☐ 3 Hours ☐ 4 Hours ☐ Other _____

Time	Oxygen, O_2 19.5 % - 22.5%	Carbon Monoxide, CO 25 – 50 PPM	Carbon Dioxide, CO_2 5,000PPM	Hydrogen Sulfide, HS 1.0 – 5.0 PPM	%LEL, Explosivity <10% cold, <0% hot	Other Specify	Initials

Confined Space Entry Sign-In/Out Log

Project Name _____ Project Number _____ Date _____

Contractor _____ Supervisor _____ Attendant _____

Location of Confined Space _____

Name of Entrant	Phone Number	Reviewed Duties	Reviewed Rescue Plan	In	Out	In	Out

Confined Space Entry Duties
Supervisor

Project Name _____ Project Number _____

Contractor _____ Supervisor _____

Know the Hazards Entrants Face

- ☐ Routes of exposure
- ☐ Signs and symptoms of exposure
- ☐ Behavioral effects of exposure
- ☐ Consequences of exposure

Entry Permit

- ☐ Appropriate entries have been made on permit form
- ☐ All tests have been conducted
- ☐ Equipment and procedures are in place
- ☐ Rescue services are available and summoning equipment is operable
- ☐ Sign permit and authorize entry

Terminate the Entry and Cancel Permit

- ☐ Operations covered by permit are complete
- ☐ A condition that is not allowed under the permit arises in or near the permit space
- ☐ Note any problems on permit to ensure appropriate revisions can be made
- ☐ Remove unauthorized personnel from area
- ☐ Determine when and if entry operation responsibility is transferred

I have reviewed the above information and I fully understand my responsibilities as a confined space entry supervisor

Entry Supervisor - Print	Entry Supervisor - Signature	Date

Confined Space Entry Duties
Attendant

Project Name _____ Project Number _____

Contractor _____ Supervisor _____

Know the Hazards Entrants Face

- ☐ Routes of exposure
- ☐ Signs and symptoms of exposure
- ☐ Behavioral effects of exposure
- ☐ Consequences of exposure

While Entrants are in Space

- ☐ Maintain an accurate head count of authorized entrants
- ☐ Accurately identify who is actually in the space at a given point in time
- ☐ Remain outside space during entry operation until relieved by another attendant
- ☐ Monitor activities around space to determine safety of entrants
- ☐ Maintain rescue equipment
- ☐ Warn unauthorized person(s) to stay away from the space
- ☐ Advise unauthorized person(s) to immediately exit the space
- ☐ Perform no other duties – concentrate on monitoring and protecting the entrant

Communication with Entrants

- ☐ Monitor entrant status
- ☐ Advise if unauthorized entrants are in space
- ☐ Alert entrant(s) to evacuate

Order an Evacuation

- ☐ A prohibited condition is detected
- ☐ Behavioral effects of hazard exposure are detected in entrant(s)
- ☐ A situation outside of the space could endanger entrant(s)
- ☐ Attendant cannot effectively and safety perform all require duties

In Case of Emergency

- ☐ Summon rescue and other emergency services if entrant(s) need evacuation assistance
- ☐ Perform non-entry rescue as specified by the Confined Space Safety Procedure

I have reviewed the above information and I fully understand my responsibilities as a confined space entry attendant.

Entry Attendant - Print	Entry Attendant - Signature	Date

Confined Space Entry Duties
Entrant

Project Name _____ Project Number _____

Contractor _____ Supervisor _____

Know the Hazards Entrants Face

- ☐ Routes of exposure
- ☐ Signs and symptoms of exposure
- ☐ Behavioral effects of exposure
- ☐ Consequences of exposure

Know how to Properly Use Equipment

- ☐ Respirators
- ☐ Communication equipment
- ☐ Gas detection equipment
- ☐ Lighting equipment
- ☐ Egress equipment
- ☐ Personal protective equipment (PPE)

Communication with Attendant

- ☐ Entrant(s) status
- ☐ Evacuation orders

Alert Attendant

- ☐ Symptoms or signs of exposure are present
- ☐ Detection of prohibited conditions
- ☐ Unexpected problems or conditions

Exit Space as Quickly as Possible

- ☐ Ordered by attendant
- ☐ Detection of prohibited conditions
- ☐ Symptoms or signs of exposure are present
- ☐ Evacuation alarm is sounded

I have reviewed the above information and I fully understand my responsibilities as a confined space entry entrant.

Entrant - Print	Entrant - Signature	Date

Crane Inspection Record

Project Name _____ Project Number _____ Date _____

Contractor _____ Supervisor _____

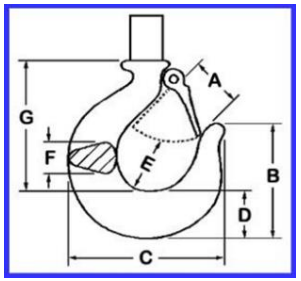
Hoist Mfr _____ Serial # _____ Equipment ID # _____

Last Annual Inspection Date _____

Refer to hook diagram

Lower Hook ID # _____ Original "A" Dim _____ Original "D" Dim _____

Upper Hook ID # _____ Original "A" Dim _____ Original "D" Dim _____



Year	Inspector Print Name	Lower Hook Dimensions		Lower Hook Condition	Upper Hook Dimension		Upper Hook Condition	Load Chain: Note any wear, twist, distorted or stretched links	Cable Inspection: Note any broken wires, kinks or lubrication needed	Supporting Structures: Note any indications of wear or weakness
		"A"	"D"		"A"	"D"				
January										
February										
March										
April										
May										
June										
July										
August										
September										
October										
November										
December										

Operate hoist and crane to determine if operating properly. List problems and action required on reverse side.
Check order, filter and regulator for proper pressure setting, oil level, and operation.

- If the hook point is twisted off center by more than 10%, hook shall be replaced.
- If the A dimension exceeds the B dimension by more than 15%, hook shall be replaced.
- Missing and inoperative hook latches shall be replaced.
- Hook latches that do not close the throat opening of the hook shall be removed from service until the latch is repaired or replaced.
- Hooks showing damage from chemicals, corrosion or deformation shall be repaired or replaced.
- If the D dimension is less than 90% of the original D dimension (10% wear in the load bearing area of the hook), hook shall be replaced.
- If any dimension (A, B, C or D) of the hook is reduced by more than 10% of the original dimension, hooks shall be replaced.

Crane Lift Plan

Project Name _____ Project Number _____

Prepared By _____ Date _____

Contractor _____ Date of Crane Lift _____

Supervisor _____ Phone _____

A/D Director _____ Operator _____

Qualified Rigger _____ Signal Person _____

Purpose/Description of Load _____

_____

Manufacturer/Model _____ Serial Number _____

Crane Max. Capacity _____ Max/Min Lift Angle _____ Max Capacity for Lift Angle _____

Authorized Personnel

_____ _____

_____ _____

_____ _____

Lift Checklist

- ☐ Keep a copy of this plan at the work site and follow the plan
- ☐ Assign a designated leader
- ☐ Ensure all personnel involved in the lift understand the plan
- ☐ Provide the task-qualified supervision specified in the planning process
- ☐ Vacate all non-essential personnel from the building or adjacent area
- ☐ Ensure a signaler is assigned, if required
- ☐ Identify the crane operator
- ☐ Follow specific instructions/procedures for attachment of the rigging gear to the load
- ☐ Use proper rigging techniques. Examples include padding sharp corners, orientation of choker hitches for "rolls", orientation of hooks, no binding of hoist rings, etc.
- ☐ Test and balance the load. Slowly raise the crane to take the slack out of the rigging without actually lifting the item. Allow the rigging gear to settle into place, checking for twists and binding. Make sure that padding has remained in place and all slings are protected from sharp edges. Begin to raise the item to verify balance and check the braking system by watching that load does not sink. If load is not balanced, lower the load, and adjust. Repeat as necessary until the load is evenly balanced.
- ☐ Follow "Conduct of Operator" requirements
- ☐ Stop the job when any potentially unsafe conditions are recognized

Load(s) Description

This plan covers: ☐ Single load only ☐ Multiple similar loads *(list dimensions and weight of largest load)*

_____	_____	_____	_____	_____
Length	Width	Height	Diameter	Load Weight

Weight determination (*Choose One*)

☐ Marked on load ☐ Weighted ☐ Estimated ☐ Other _____

Weight calculated by _____ Drawing Number _____

Lift Description - *include directions for lifting, rotation, flipping, speeds, and travel*

_____

_____

Evaluate the hazards - *define specific controls, or attach pre-task plan (PTP) or job safety analysis (JSA)*

_____

_____

_____

_____

Plan the rigging

On a sketch or photo (see next page for sketch grid), show how the item will be rigged and the type of gear to be used:

- ☐ Show location of shackles, hoist rings, spreader beams, slings, etc.
- ☐ Show attachment points (how rigging gear will be attached to load)
- ☐ Show where padding of sharp edges are necessary
- ☐ Provide the weight of heavy equipment such as lifter or spreader beam
- ☐ Show proper orientation of eyebolts
- ☐ Indicate the center of gravity (horizontal and vertical)

Attachment Points - *attach photos to illustrate, as necessary*

☐ Manufacturer-provided lift point ☐ Sling in choker hitch ☐ Sling in basket hitch ☐ Sling in vertical hitch

☐ Threaded hole (*eyebolt or hoist ring*) Hole Diameter _____ Material _____

☐ Other _____ **Confirm attachment points or hitch methods with the load owner*

☐ The lift points or attachment methods described in this lift plan can withstand the forces created by the rigging gear

_____ _____ _____

Load Owner Signature Date

Rigging Equipment

- ☐ List each piece of rigging gear shown on the rigging sketch or photo in the table below (such as: load hook, shackles, slings, eye bolts). If a component weights more than 10 pounds, include the weight in the weight column.
- ☐ Label the sketch or photo using the corresponding letter for the gear.
- ☐ Draw sling angles and the resulting load reduction factors for slings and eyebolts.
- ☐ Calculate the force on each piece of rigging gear. Show that angles are accounted for in determining forces.
- ☐ Determine the required rigging gear capacity and size. Indicate if this is an exact specification or a minimum.

Rigging Equipment

	Type	Weight	Force on Rigging Gear	Capacity/Rating/ Working Load Limit	Size Specification
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Rigging Sketch

Include all information required to determine that the load is properly rigged, and appropriate rigging gear is selected. Include, as applicable, sling angles, eye bolt orientation, padding points, center of gravity, type of sling hitch and any other pertinent information.

Reviewed and Approved By

Contractor Supervisor	Signature	Date
A/D Director	Signature	Date
Crane Operator	Signature	Date
Qualified Rigger	Signature	Date
Project Superintendent	Signature	Date
Safety Representative	Signature	Date

Daily Excavation Inspection Checklist

Project Name _____ Project Number _____

Inspected By _____ Date _____

Contractor _____ Competent Person _____

Supervisor _____ Phone _____

Approx. Temp _____ Approx. Wind & Dir _____ Soil Classification _____

Excavation Depth & Width _____ Protective System(s) Used _____

Activities in Excavation _____

Note: Trenches over 4 feet in depth are considered excavations. Any items marked NO on this form MUST be remediated prior to any employees entering the excavation.

YES	NO	N/A	Description
			General
☐	☐	☐	Employees protected from cave-in and loose rock/soil that could roll into the excavation
☐	☐	☐	Spoils, materials & equipment set back at least 2 feet from the edge of the excavation
☐	☐	☐	Engineering designs for sheeting and/or manufacturer's data on trench box capabilities on-site
			Utilities
☐	☐	☐	Utility company contacted and given 24-hour notice and/or utilities already located and marked
☐	☐	☐	Overhead lines located, noted, and reviewed with the operator
☐	☐	☐	Utility locations reviewed with the operator and precautions taken to ensure contact doesn't occur
☐	☐	☐	Utilities crossing the excavation supported and protected from falling materials
☐	☐	☐	Underground installations protected, supported, or removed when excavation is open
			Wet Conditions
☐	☐	☐	Precautions taken protect employees from water accumulations (continuous dewatering)
☐	☐	☐	Surface water or runoff diverted/controlled to prevent accumulation in the excavation
☐	☐	☐	Inspection made after every rainstorm or other hazard increasing occurrence
			Entry & Exit
☐	☐	☐	Exit (i.e. ladder, sloped wall) no further than 25 feet from ANY employee
☐	☐	☐	Ladders secured and extended 3 feet above the edge of the trench
☐	☐	☐	Wood ramps constructed of uniform material thickness, cleated together at the bottom
☐	☐	☐	Employees protected from cave-ins when entering or exiting the excavation
			Hazardous Atmosphere
☐	☐	☐	Air in the excavation tested for oxygen, deficiency, combustibles, and other contain ments
☐	☐	☐	Ventilation used in atmospheres that are oxygen rich/deficient and/or contains hazardous substances
☐	☐	☐	Ventilation provided to keep LEL below 10%
☐	☐	☐	Emergency equipment available where hazardous atmospheres could or do exist
☐	☐	☐	Safety harness and lifeline used
☐	☐	☐	Supplied air necessary (if yes, contact safety rep)

Keep a copy of each excavation checklist on-site for the duration of the project, forward a copy to the Project Superintendent and/or Safety Representative

Fall Protection Assessment Checklist

Project Name _____ Project Number _____

Prepared By _____ Date _____

Contractor _____

Supervisor _____ Phone _____

Scope of Work _____

Check box for each fall hazard that may be encountered during the project activities, and for which fall protection systems and/or practices to be used to protect employees from identified hazards.

Unprotected Sides and/or Edges

- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems

Note _____

Leading Edge Work

- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems

Note _____

Hoist Areas

- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems

Note _____

Work on Aerial Work Platforms *(Boom & Scissor Lifts)*

- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems

Note _____

Method(s) of Prompt and Safe Rescue, or Removal of Injured Worker on Aerial Work Platform

- ☐ Utilize rescue plan established by General Contractor or Construction Manager
- ☐ Utilize local fire and rescue services
- ☐ Utilize plant or facility rescue services
- ☐ Use lift truck with personnel basket
- ☐ Use separate aerial work platform

Note _____

Excavations

- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Work in or near Utility Shafts

- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Holes or Floor Openings

- ☐ Fall Restraint Systems
- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Wall Openings

- ☐ Fall Restraint Systems
- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Fall Protection Assessment Checklist

Work on Flat or Low-Slope Roofs *(4:12 Pitch or Less)*

- ☐ Fall Restraint Systems
- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Work on Steep-Slop Roofs *(Greater than 4:12 Pitch)*

- ☐ Fall Restraint Systems
- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Work above Dangerous Equipment

- ☐ Fall Restraint Systems
- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Other

- ☐ Fall Restraint Systems
- ☐ Personal Fall Arrest Systems
- ☐ Waring Line Systems
- ☐ Guardrail Systems
- ☐ Hole Covers

Note _____

Additional Notes, Special Precautions, etc.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Reviewed By

Contractor Supervisor _____ _____
Signature Date

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

Fall Protection Equipment Inspection Checklist: Harness

Project Name ______________________ Project Number ______________ Date ____________

Contractor ______________________ Supervisor ______________________ Inspected By ______________________

✓ = PASS Remain in Service   *X = FAIL Remove from Service*

Labels/Markings				Webbing				Stitching			D-Rings					Buckles/Adjusters			
OSHA labels, markings	Legible	Secured, in place	Mfr. In-Service Date	Discolored, Dry rot	Cuts, Frays	Chemical, Grease/Oil Exposure	Burn/Heat Damage	Fully Stitched	Back stitch	Pulled/Cut Stitches	Damage	Distorted Bent	Cracks Burrs	Corrosion	Burn/Heat Damage	Damage	Distorted, Bent	Sharp Edge Cracks	Corrosion

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Mfr. Name, Mfg. Date   In-Service Date   ID/Serial No.

Deficiencies or Comments ____

FALL PROTECTION EQUIPMENT INSPECTION CHECKLIST: LANYARD/LIFELINE

Project Name ______________________ Project Number ______________ Date ____________

Contractor ______________________ Supervisor ______________________ Inspected By ______________________

✓ = PASS Remain in Service X = FAIL Remove from Service

Labels/Markings				Snaphooks					Lanyard & Lifeline							
OSHA labels, markings	Legible	Secured, In place	Mfr. In-Service Date	Excessive Wear/Dirt	Burn/Heat Damage	Sharp edge Cracks, Burrs	Distorted, Bent	Corrosion	Discolored, Dry Rot	Burn/Heat Damage	Chemical, Grease/Oil Exposure	Cuts, Frays, Tears	Knots	Distorted Housing	Activation/ Deployed Indicated	Spring Tension Functional
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			
Mfr. Name, Mfg. Date									In-Service Date				ID/Serial No.			

Deficiencies or Comments ____

Fire Extinguisher Inspection Checklist

Project Name _____ Project Number _____

Inspected By _____ Date _____

Contractor _____ Supervisor _____

✓ = PASS Remain in Service ✗ = FAIL Remove from Service

Fire Extinguisher No. and/or Location	Yearly Maintenance	Visible Unobstructed Location	Tag Attached & Signed	Locking Pin	Tamper Seal	Pressure Gauge	Damage	Corrosion	Leakage	Clogged Nozzle

Deficiencies or Comments _____

Hot Work Permit

This Hot Work Permit must be completed and signed prior to starting any task which involves open flames or produces heat and/or sparks; including brazing, cutting, grinding, soldering, and welding

Project Name _____ Project Number _____

Contractor _____ Date _____

Supervisor _____ Phone _____

Location/Building _____ Duration of Task _____

Task/Purpose of Permit _____

Equipment to be Used _____

Employee(s) Performing Hot Work _____

Employee(s) Performing Fire Watch _____

REVIEW CHECKLIST PRIOR TO STARTING WORK:

- ☐ Equipment and its components inspected and in good condition
- ☐ Proper PPE obtained, and inspected
- ☐ Adequate ventilation in work area
- ☐ Other required permits obtained (i.e., confined space, lockout/tagout, etc.)
- ☐ Project Superintendent and/or Safety Rep notified

Within 35' of Work Area:

- ☐ Floors clear of dust, debris, oily deposits, and combustible & flammable materials
- ☐ Combustible floors wet down, covered, or shielded
- ☐ Flammable liquids removed or protected
- ☐ Wall and floor openings covered
- ☐ Stationary equipment protected
- ☐ Explosive atmosphere eliminated
- ☐ If working on walls, opposite side of wall clear of combustibles and flammable materials
- ☐ If working on enclosed equipment, equipment clear of combustibles and flammable liquids purged

Fire Watch Duties:

- ☐ Fire watch to remain in work area for the duration of hot work task(s), and for 60 minutes after task is completed *(including any breaks or lunch)*
- ☐ 20lb ABC fire extinguisher provided
- ☐ Trained in use of equipment and emergency action plan
- ☐ Additional fire watch may be required for adjacent areas (above, below, or opposite side of wall)

Approved By

Project Superintendent _____ _____
Signature Date

Safety Representative _____ _____
Signature Date

PERMIT IS GOOD FOR ONE SHIFT ONLY – PERMIT EXPIRES AT THE END OF THE SHIFT

Upon Completion of Task – Return to Project Superintendent and/or Safety Rep the following workday

Ladder Inspection Checklist

Project Name _____ Project Number _____

Inspected By _____ Date _____

Contractor _____ Supervisor _____

Manufacturer/Model _____ Purpose _____

Type ☐ Stepladder (A-Frame) ☐ Straight/Extension

Yes	No		
☐	☐	1.	Broken, bent, or missing steps, rungs, cleats, or rails
☐	☐	2.	Steps and rungs free of water, grease, oil, or other slippery substance
☐	☐	3.	Free of splits, cracks, and rust corrosion
☐	☐	4.	Loose or bent hinges that cannot be fully opened or locked in place
☐	☐	5.	Loose, broken, or missing extension locks to ensure safe overlap of extension ladder section
☐	☐	6.	Label attached and legible
☐	☐	7.	Stable and completely balanced (not shaking or swaying) with all legs resting firmly on the floor
☐	☐	8.	***Straight Ladders:*** Extend 3' above working level and secured
☐	☐	9.	***Straight Ladders:*** Placed at 4 : 1 (length : base)
☐	☐	10.	Other structural defects or operating problems

_____

_____

Lockout/Tagout Plan

Project Name _____ Project Number _____

Date _____

Lockout/Tagout Coordinator _____

Owner Representative _____ Phone _____

Purpose *and* Duration of Lockout/Tagout _____

Name *and* Location of Equipment/Machine/System _____

Contractor _____ Authorized Employee _____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Lockout Device(s) Used _____

Energy Source ☐ Electrical ☐ Hydraulic ☐ Pneumatic ☐ Mechanical ☐ Gravitational ☐ Chemical

☐ Other _____

Review before starting lockout/tagout

- ☐ All employees have completed Lockout/Tagout training
- ☐ Hazard Analysis (PTP/JSA) completed for Lockout/Tagout, and reviewed and signed by employees
- ☐ Locks - designated (color-coded if multiple locks)
- ☐ Tags - information completed (equipment and contractor info), signed, and dated

Shutdown of equipment/machine/system

Completed By _____ Safety Rep Initials _____

Isolation performed correctly

Completed By _____ Safety Rep Initials _____

Locks and Tags applied

Check Stored Energy has been released, dissipated, restrained, etc.

Completed By _____ Safety Rep Initials _____

Verify Isolation by testing to ensure equipment/machine/system is de-energized

Completed By _____ Safety Rep Initials _____

Review before locks & tags are removed and equipment/machine/system is returned to service

- ☐ Work area clear of materials & debris
- ☐ Guards replaced
- ☐ Controls in safe/neutral position
- ☐ Personnel removed from work area and notified locks & tags will be removed

Locks and Tags Removed Date _____

Equipment Tested Before Return to Service Date _____

Completed By _____ Safety Rep Initials _____

Additional Contractors Involved in Lockout/Tagout

Contractor _____

Authorized Employee _____ Lock Color/ID _____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Contractor _____

Authorized Employee _____ Lock Color/ID_____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Contractor _____

Authorized Employee _____ Lock Color/ID_____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Contractor _____

Authorized Employee _____ Lock Color/ID_____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Upon Completion of Lockout/Tagout - Return to Project Superintendent and/or Safety Rep the following workday

LOCKOUT/TAGOUT ANNUAL PROGRAM REVIEW

Review of an actual lockout/tagout must be conducted annually to verify program compliance and efficacy of employee training. Any deviation or inadequacy found must be corrected through immediate retraining

Project Name _____ Project Number _____

Date _____ Lockout/Tagout Coordinator _____

Purpose *and* Duration of Lockout/Tagout _____

Name *and* Location of Equipment/Machine/System _____

Contractor _____ Authorized Employee _____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Lockout Device(s) Used _____

Energy Source ☐ Electrical ☐ Hydraulic ☐ Pneumatic ☐ Mechanical ☐ Gravitational ☐ Chemical
☐ Other _____

Additional Contractor Involved in Lockout/Tagout

Contractor _____

Authorized Employee _____ Lock Color/ID _____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Contractor _____

Authorized Employee _____ Lock Color/ID _____

Supervisor _____ Phone _____

Affected Employees Participating in Lockout/Tagout

_____ _____

Yes	No		
☐	☐	1.	All employees have completed Lockout/Tagout training
☐	☐	2.	Hazard Analysis (PTP/JSA) completed for Lockout/Tagout, and reviewed and signed by employees
☐	☐	3.	**Shutdown** of equipment/machine/system
☐	☐	4.	**Isolation** performed correctly
☐	☐	5.	**Locks and Tags** applied
☐	☐	6.	Locks designated (color-coded, if multiple locks)
☐	☐	7.	Tags information completed (equipment and contractor info), signed, and dated
☐	☐	8.	**Check Stored Energy** has been released, dissipated, restrained, etc.
☐	☐	9.	**Verify Isolation** by testing to ensure equipment/machine/system is de-energized
☐	☐	10.	Equipment/Machine/System returned to service (work area clear of materials & debris; guards replaced; controls in safe/neutral position; personnel removed from work area and notified locks & tags will be removed; remove locks & tags)

Comments _____

_____

Reviewer - *designated by the Safety Team and not involved in the lockout under review*

_____ _____ _____

Print Signature Date

Respirator Inspection Checklist

Project Name _____ Project Number _____

Inspected By _____ Date _____

Contractor _____ Supervisor _____

Respirator Type: ☐ Disposable ☐ Air-Purifying Half-Face ☐ Air-Purifying Full-Face ☐ SCBA ☐ PAPR

Respirator Manufacturer: _____ Respirator ID: _____

Yes	No	
		Facepiece
☐	☐	1. Clean; Free of dirt/dust/residue
☐	☐	2. Undamaged; Free of cracks, tears, holes, or distortion from improper storage
☐	☐	3. Seal, rubber, and elastic parts flexible with no deterioration
☐	☐	4. For full-face respirators, faceshield clean and free of damage (including scratches)
		Filters/Cartridges
☐	☐	5. Appropriate filters/cartridges used and changed in accordance with manufacturer's recommendations
☐	☐	6. Installed filters/cartridges free of excessive dirt and dust, and undamaged
☐	☐	7. Gaskets seat properly, and in good condition (not missing or worn)
☐	☐	8. Filter/Cartridge housing in good condition (not cracked or dented)
		Straps
☐	☐	9. Free of nicks, cuts, burns, breaks
☐	☐	10. No loss of elasticity
☐	☐	11. Buckles, fastenings, attachments in good condition and function properly
		Inhalation/Exhalation Valves
☐	☐	12. Free of dirt/dust/residue
☐	☐	13. Undamaged; Free of cracks and tears, inflexible
☐	☐	14. Free of dirt/dust/residue
		Air-Supplying Respirators
☐	☐	15. Facepiece, straps, valves, and breathing lines free of defects, damage, and deterioration
☐	☐	16. Proper filters used and in good condition (clean, free of defects and damage)
☐	☐	17. Connectors/Clamps in good condition (not missing or broken)
☐	☐	18. Good breathing air quality
☐	☐	19. Airline hose free of defects and damage (no breaks or kinks)
☐	☐	20. Tight connections, proper settings of regulators and valves

Deficiencies or Comments _____

_____

_____

Respiratory Protection: OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee: Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____
2. Your Name: _____
3. Your Age (to the nearest year): _____
4. Sex: ☐ Male ☐ Female
5. Your Height: _____ ft _____ in
6. Your Weight: _____ lbs
7. Your Job Title: _____
8. Phone Number (to be reached by the health care professional who reviews the questionnaire): _____
9. Best Time to Contact: _____
10. Has your employer told you how to contact the health care professional who will review the questionnaire: ☐ Yes ☐ No
11. Check the type of respirator you will use (choose all that apply):
    a. ☐ N, R, or P disposable respirator (filter-mask, non-cartridge type only)
    b. ☐ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus).
12. Have you worn a respirator: ☐ Yes ☐ No If "yes", what type(s): _____

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator

☐ Yes ☐ No 1. Do you *currently* smoke tobacco, or have smoke tobacco in the last month?

2. Have you *ever* had any of the following pulmonary or lung problems?
   - ☐ Yes ☐ No a. Seizures
   - ☐ Yes ☐ No b. Diabetes (sugar disease)
   - ☐ Yes ☐ No c. Allergic reactions that interfere with your breathing
   - ☐ Yes ☐ No d. Claustrophobia (fear of closed-in places)
   - ☐ Yes ☐ No e. Trouble smelling odors

3. Have you *ever* had any of the following pulmonary or lung problems?
   - ☐ Yes ☐ No a. Asbestos
   - ☐ Yes ☐ No b. Asthma
   - ☐ Yes ☐ No c. Chronic bronchitis
   - ☐ Yes ☐ No d. Emphysema
   - ☐ Yes ☐ No e. Pneumonia
   - ☐ Yes ☐ No f. Tuberculosis
   - ☐ Yes ☐ No g. Silicosis
   - ☐ Yes ☐ No h. Pneumothorax (collapsed lung)
   - ☐ Yes ☐ No i. Lung cancer
   - ☐ Yes ☐ No j. Broken ribs
   - ☐ Yes ☐ No k. Any chest injuries or surgeries
   - ☐ Yes ☐ No l. Any other lung problem that you've been told about

4. Do you *currently* have any of the following symptoms of pulmonary or lung illness?

☐ Yes	☐ No	a. Shortness of breath
☐ Yes	☐ No	b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline
☐ Yes	☐ No	c. Shortness of breath when walking with other people at an ordinary pace on level ground
☐ Yes	☐ No	d. Have to stop for breath when walking at your own pace on level ground
☐ Yes	☐ No	e. Shortness of breath when washing or dressing yourself
☐ Yes	☐ No	f. Shortness of breath that interferes with your job
☐ Yes	☐ No	g. Coughing that produces phlegm (thick sputum)
☐ Yes	☐ No	h. Coughing that wakes you early in the morning
☐ Yes	☐ No	i. Coughing that occurs mostly when you are lying down
☐ Yes	☐ No	j. Coughing up blood in the last month
☐ Yes	☐ No	k. Wheezing
☐ Yes	☐ No	l. Wheezing that interferes with your job
☐ Yes	☐ No	m. Chest pain when you breathe deeply
☐ Yes	☐ No	n. Any other symptoms that you think may be related to lung problems

5. Have you *ever* had any of the following cardiovascular or heart problems?

☐ Yes	☐ No	a. Heart attack
☐ Yes	☐ No	b. Stroke
☐ Yes	☐ No	c. Angina
☐ Yes	☐ No	d. Heart failure
☐ Yes	☐ No	e. Swelling in your legs or feet (not caused by walking)
☐ Yes	☐ No	f. Heart arrhythmia (heart beating irregularly)
☐ Yes	☐ No	g. High blood pressure
☐ Yes	☐ No	h. Any other heart problem that you've been told about

6. Have you *ever* had any of the following cardiovascular or heart symptoms?

☐ Yes	☐ No	a. Frequent pain or tightness in your chest
☐ Yes	☐ No	b. Pain or tightness in your chest during physical activity
☐ Yes	☐ No	c. Pain or tightness in your chest that interferes with your job
☐ Yes	☐ No	d. In the past two years, have you noticed your heart skipping or missing a beat
☐ Yes	☐ No	e. Heartburn or indigestion that is not related to eating
☐ Yes	☐ No	f. Any other symptoms that you think may be related to heart or circulation problems

7. Do you *currently* take medication for any of the following problems?

☐ Yes	☐ No	a. Breathing or lung problems
☐ Yes	☐ No	b. Heart trouble
☐ Yes	☐ No	c. Blood pressure
☐ Yes	☐ No	d. Seizures

8. If you've used a respirator, have you ever had any of the following problems?
If you've never used a respirator, go to question 9.

☐ N/A		
☐ Yes	☐ No	a. Eye irritation
☐ Yes	☐ No	b. Skin allergies or rashes
☐ Yes	☐ No	c. Anxiety
☐ Yes	☐ No	d. General weakness or fatigue
☐ Yes	☐ No	e. Any other problem that interferes with your use of a respirator

9. Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire?

☐ Yes ☐ No

Respiratory Protection: OSHA Respirator Medical Evaluation Questionnaire (Mandatory)

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCBA). *For employees who have been selected to use other types of respirators, answering these questions is voluntary.*

☐ Yes ☐ No 10. Have you *ever* lost vision in either eye (temporarily or permanently)

11. Do you *currently* have any of the following vision problems?

☐ Yes ☐ No a. Wear contact lenses
☐ Yes ☐ No b. Wear glasses
☐ Yes ☐ No c. Color blind
☐ Yes ☐ No d. Any other eye or vision problem

☐ Yes ☐ No 12. Have you *ever* had an injury to your ears, including a broken ear drum

13. Do you *currently* have any of the following hearing problems?

☐ Yes ☐ No a. Difficulty hearing
☐ Yes ☐ No b. Wear a hearing aid
☐ Yes ☐ No c. Any other hearing or ear problem

☐ Yes ☐ No 14. Have you *ever* had a back injury?

15. Do you *currently* have any of the following musculoskeletal problems?

☐ Yes ☐ No a. Weakness in any of your arms, hands, legs, or feet
☐ Yes ☐ No b. Back pain
☐ Yes ☐ No c. Difficulty fully moving your arms and legs
☐ Yes ☐ No d. Pain or stiffness when you lean forward or backward at the waist
☐ Yes ☐ No e. Difficulty fully moving your head up or down
☐ Yes ☐ No f. Difficulty fully moving your head side to side
☐ Yes ☐ No g. Difficulty bending at your knees
☐ Yes ☐ No h. Difficulty squatting to the ground
☐ Yes ☐ No i. Climbing a flight of stairs or a ladder carrying more than 25 lbs
☐ Yes ☐ No j. Any other muscle or skeletal problem that interferes with using a respirator

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

☐ Yes ☐ No 1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen

☐ Yes ☐ No If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions

☐ Yes ☐ No 2. At work or at home, have you *ever* been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals

If "yes," name the chemicals if you know them: _____

3. Have you *ever* worked with any of the materials, or under any of the conditions, listed below:

☐ Yes ☐ No a. Asbestos
☐ Yes ☐ No b. Silica (e.g., in sandblasting)
☐ Yes ☐ No c. Tungsten/cobalt (e.g., grinding or welding this material)
☐ Yes ☐ No d. Beryllium
☐ Yes ☐ No e. Aluminum
☐ Yes ☐ No f. Coal (for example, mining)
☐ Yes ☐ No g. Iron
☐ Yes ☐ No h. Tin
☐ Yes ☐ No i. Dusty environments
☐ Yes ☐ No j. Any other hazardous exposures

If "yes," describe these exposures: _____

4. List any second jobs or side businesses you have: _____

_____

5. List your previous occupations: _____

_____

6. List your current and previous hobbies: _____

_____

☐ Yes ☐ No 7. Have you been in the military services?

☐ Yes ☐ No If "yes," were you exposed to biological or chemical agents (either in training or combat)

☐ Yes ☐ No 8. Have you *ever* worked on a HAZMAT team?

☐ Yes ☐ No 9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire (Part A. Section 2. Question 7.), are you taking any other medications for any reason (including over-the-counter medications)

If "yes," name the medications if you know them: _____

_____

10. Will you be using any of the following items with your respirator(s)?

☐ Yes ☐ No a. HEPA Filters

☐ Yes ☐ No b. Canisters (for example, gas masks)

☐ Yes ☐ No c. Cartridges

11. How often are you expected to use the respirator(s)? (Check all answers that apply to you)

☐ Yes ☐ No a. Escape only (no rescue)

☐ Yes ☐ No b. Emergency rescue only

☐ Yes ☐ No c. Less than 5 hours per week

☐ Yes ☐ No d. Less than 2 hours per day

☐ Yes ☐ No e. 2 to 4 hours per day

☐ Yes ☐ No f. Over 4 hours per day

12. During the period you are using the respirator(s), is your work effort:

☐ Yes ☐ No a. Light (less than 200 kcal per hour)

If "yes," how long does this period last during the average shift: _____ hrs _____ mins

Examples: Light Work - sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling machines.

☐ Yes ☐ No b. Moderate (200 to 350 kcal per hour)

If "yes," how long does this period last during the average shift: _____ hrs _____ mins

Examples: Moderate Work - sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface.

☐ Yes ☐ No c. Heavy (above 350 kcal per hour)

If "yes," how long does this period last during the average shift: _____ hrs _____ mins

Examples: Heavy Work - lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

☐ Yes ☐ No 13. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator

If "yes," describe this protective clothing and/or equipment: _____

_____

☐ Yes ☐ No 14. Will you be working under hot conditions (temperature exceeding 77 deg. F)

☐ Yes ☐ No 15. Will you be working under humid conditions

16. Describe the work you'll be doing while you're using your respirator(s): _____

_____

_____

17. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

_____

_____

_____

18. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

Name of the first toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the second toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

Name of the third toxic substance: _____

Estimated maximum exposure level per shift: _____

Duration of exposure per shift: _____

The name of any other toxic substances that you'll be exposed to while using your respirator:

_____

_____

19. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):

_____

_____

_____

_____

_____

Rigging Equipment Inspection: Synthetic Sling

Project Name _____ Project Number _____

Inspected By _____ Date _____

Contractor _____ Supervisor _____

Qualified Rigger _____

Slings must be removed from service if any of the following are present:

- Acid or caustic burns
- Melting or charring of any of the sling surface
- Snags, punctures, tears, or cuts
- Broken or worn stitches
- Distortion of fittings

✓ = PASS *Remain in Service* ✗ = FAIL *Remove from Service*

Rated Capacity Label	Acid Burns	Melting or Charring	Punctures	Snags	Tears	Cuts	Stitches		Fittings	
							Broken	Worn	Broken	Worn

Sling ID	Date Removed from Service	Date Returned to Service

Deficiencies or Comments _____

Rigging Equipment Inspection: Wire Rope

Project Name ______________________________ Project Number ______________________

Inspected By ______________________________ Date ______________________

Contractor ______________________________ Supervisor ______________________

Qualified Rigger ______________________________

Slings must be removed from service if any of the following are present:

- 10 random broken wires in 1 lay or 5 broken wires in 1 strand in 1 lay.
- Wear or scraping 1/3 original diameter of outside individual wires.
- Kinking, crushing, bird-caging or any other damage to structure.
- Evidence of heat damage or corrosion
- End attachments that are cracked, deformed, or worn.
- Any distortion causing throat opening increase of 5%, not to exceed 1/4"

✓ = PASS Remain in Service *X = FAIL Remove from Service*

Rated Capacity Label	Measured Diameter	Kinks	Crushed	Birdcage	Broken Wires		Heat Damage	End Attachment Fitting	End Attachment Broken Wires	Hook Condition
					1 Lay	1 Strand				
Sling ID			Date Removed from Service				Date Returned to Service			
Sling ID			Date Removed from Service				Date Returned to Service			
Sling ID			Date Removed from Service				Date Returned to Service			
Sling ID			Date Removed from Service				Date Returned to Service			
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Sling ID			Date Removed from Service				Date Returned to Service			
Sling ID			Date Removed from Service				Date Returned to Service			
Sling ID			Date Removed from Service				Date Returned to Service			

Deficiencies or Comments ____

____

____

Mobile Equipment Inspection Checklist

Project Name _____ Project Number _____

Contractor _____ Supervisor _____

Inspector By _____ Week Of _____ ☐ 1st Shift ☐ 2nd Shift

Manufacturer/Model _____ Serial Number _____

Type: ☐ Powered Industrial Truck (Forklift) ☐ Skid Steer ☐ Heavy Equipment (Excavators, Dozers, Loaders, etc.)

✓ = PASS X = FAIL n/a = Not Applicable

Engine OFF	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Leaks - no visible oil/fluids							
Tires - inflated, free of excessive wear/damage							
Overhead Guard - in place, not bent, cracked or loose							
Forks and Mast - not bent, worn, or cracked							
Load Back Rest Extension - in place, not bent, cracked or loose							
Lights - (head, tail & warning) free of damage							
Hydraulic Fluid - adequate level for proper operation of forklift							
Brake Fluid - adequate level for proper operation							
Load Rating Chart - in cab and legible							
Warning Decals - present and legible							
Operator's Manual - present and readable							
Controls - plainly marked, indicate direction of travel/motion							

Engine ON	Mon	Tue	Wed	Thu	Fri	Sat	Sun
NO Abnormal - noises, vibrations, etc.							
Horn - works							
Backup Alarm - works							
Turn Signal - operates smoothly							
Lights - (head, tail & warning) work and aimed correctly							
Dash Lamps - (battery warning, gauges & instruments) work							
Lift, Lower, & Tilt - operate smoothly, no excessive drift							
Drive Control - (forward & reverse) operates smoothly							
Accelerator - (or Direction Control Pedal) operates smoothly							
Steering - operates smoothly and responsive							

Miscellaneous	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Seat Belt - functions properly and free of damage							
Fire Extinguisher - in cab, fully charged & inspected							
Mirrors/Glass - free of cracks, doesn't obstruct view							
Placard - affixed if driving on roadways							
ID - equipment labeled with contractor name							

Deficiencies or Comments _____

Appendix A
Covid-19 Response Plan

1.0 PURPOSE

The purpose of this section is to provide information about the COVID-19 virus and establish the general provisions to reduce the risk of spreading the virus.

2.0 SCOPE

This section applies to all Watertap Inc operated facilities, projects, and employees except where superseded by more stringent local standards or Owner's requirements.

3.0 INTRODUCTION

a. Coronavirus disease 2019 (COVID-19) is a respiratory illness that can spread from person to person. This is a new virus and new information is constantly being updated.
b. Since the start of the pandemic, a total of twelve (12) variants have been identified and classified. Currently two of those variants (Delta and Omicron) have been classified as Variant of Concern and are present in the United States. The Delta Variant, first identified in the United States in March 2021, and the Omicron Variant, first identified in United States in November 2021, are more contagious than the original COVID-19. However, the Omicron Variant presents with less severe symptoms.
c. COVID-19 is an airborne virus and is spread through respiratory droplets during close contact with an infected person. It is also possible to for a person to contract COVID-19 by touching a surface or object that has the virus on it and then touching his/her mouth, nose, or eyes.
d. The risk of infection from the virus that causes COVID-19 is higher for people who are close contacts of someone known to have COVID-19 and for those who live in or have recently been in an area with ongoing spread of COVDI-19.
e. People with underlying health conditions such as asthma, diabetes, high blood pressure, heart disease, or lung disease, and older adults also have a higher risk of infection.
f. A person infected with COVID-19 may have mild to severe respiratory illness symptoms of :
   - Fever
   - Cough
   - Sore Throat
   - Runny Nose
   - Shortness of Breath/Difficulty Breathing (severe cases)

   Some people may develop a more serious illness such as pneumonia, multi-organ failure and in some cases death.
g. Not every infected person will show symptoms and it is possible to spread the virus. Preventative actions to help people protect themselves from COVID-19 and other respiratory illnesses include:
   - Keeping a safe distance (6 feet) from other people while in public spaces.
   - Avoid close contact with people who are sick.
   - Avoid touching eyes, nose and mouth with unwashed hands.
   - Wash hands often with soap and water for at least 20 seconds.
   - Use alcohol-based hand sanitizer that contains at least 60% alcohol if soap and water are not available.
h. If a person is sick, to keep from spreading COVID-19 and other respiratory illnesses:
   - Stay home when sick
   - Delay travel plans
   - Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
   - Wear a facemask when around other people.
   - Clean and disinfect frequently touched objects and surfaces.
i. If a person has traveled from an affected area, there may be restrictions on movements for up to 2 weeks. If symptoms develop during that period, seek medical advice. Call primary care provider and tell them of any travel and symptoms. Do not go to an emergency room without contacting primary care provider first.
j. More information can be found on the Center for Disease Control website. (www.cdc.org)
   In Michigan, residents are encouraged to contact the COVID-19 Hotline 888-535-6136 (Open 7 days a week, 8am to 5pm). Or email COVID19@michigan.gov (Emails answered 7 days a week, 8am to 5pm).

4.0 DEFINITIONS

a. Cleaning - refers to the removal of dirt and impurities, including germs, from surfaces. Cleaning alone does not kill germs. However, by removing the germs, it decreases their number and therefore any risk of spreading infection.
b. Close contact - is defined as:

- Being within approximately 6 feet (2 meters) of a COVID-19 case for a prolonged period of time; close contact can occur while caring for, living with, visiting, or sharing a healthcare waiting area or room with a COVID-19 case, OR
- Having direct contact with infectious secretions of a COVID-19 case (e.g., being coughed on)

c. Disinfecting - works by using chemicals to kill germs on surfaces. This process does not necessarily clean dirty surfaces or remove germs. However, killing germs remaining on a surface after cleaning further reduces any risk of spreading infection.
d. Face Covering - is a face mask, or fabric (i.e. bandana), that can be secured to a person's head and covers both nose and mouth.
e. Frequently Touched Surfaces - are those surfaces that have regular and constant contact with hands. This can include but is not limited to doorknobs, keyboards, handrails, locks, handles, etc.
f. Isolation - means the separation of a person or group of people known or reasonably believed to be infected with a communicable disease and potentially infectious from those who are not infected to prevent spread of the communicable disease. Isolation for public health purposes may be voluntary or compelled by federal, state, or local public health order.
g. Quarantine - in general means the separation of a person or group of people reasonably believed to have been exposed to a communicable disease but not yet symptomatic, from others who have not been so exposed, to prevent the possible spread of the communicable disease.
h. Self-monitoring - means people should monitor themselves for fever by taking their temperatures twice a day and remain alert for cough or difficulty breathing. If they feel feverish or develop measured fever, cough, or difficulty breathing during the self-monitoring period, they should self-isolate, limit contact with others, and seek advice by telephone from a healthcare provider or their local health department to determine whether medical evaluation is needed.
i. Social distancing - means remaining out of congregate settings, avoiding mass gatherings, and maintaining distance (approximately 6 feet or 2 meters) from others when possible.
j. Vaccine is a product that stimulates a person's immune system to produce immunity to a specific disease, protecting the person from that disease.
   - Pfizer-BioNTech and Moderna are the preferred COVID-19 vaccines
   - Johnson & Johnson's Janssen vaccine is also available
k. Vaccine Booster is an additional dose of the original vaccine administered a specific duration after the last dose in the primary series.
   - Pfizer-BioNTech and Moderna booster recommended 5 months after last dose in primary series
   - Johnson & Johnson's Janssen booster recommended 2 months after first dose
l. Vaccinated Employee is an employee who has received the primary series of their chosen vaccine; 2 doses for Pfizer-BioNTech, 1 dose for Johnson & Johnson's Janssen.
m. Up-to-date Employee has received all doses (primary series and booster doses, if eligible) of their chosen vaccine
n. Unvaccinated Employee is an employee who has not received any dose of any vaccine or has not completed the primary series of their chosen vaccine.
o. Mutation refers to a single change in a virus's genome (genetic code). Mutations happen frequently, but only sometimes change the characteristics of the virus
p. Lineage is a group of closely related viruses with a common ancestor. SARS-CoV-2 has many lineages; all cause COVID-19
q. Variant is a viral genome (genetic code) that may contain one or more mutations. In some cases, a group of variants with similar genetic changes, such as a lineage or group of lineages

5.0 RESPONSIBILITIES

5.1 PROJECT MANAGER

The Project Manager shall have final authority over issues regarding all subcontractors and employees. The Project Manager shall communicate the plan and updates to the Owner, all Employees, Subcontractors, Vendors, and Service Providers.

5.2 PROJECT SUPERINTENDENT

The Project Superintendent is responsible for the active control of the COVID-19 Response Plan. The Project Superintendent shall designate the Screening Surveyor for Watertap Inc employees. All work is to be done in compliance with the COVID-19 Response Plan, and shall be planned and overseen by the Project Superintendent. The Project Superintendent shall conduct daily inspections of on-site cleaning supplies and weekly inspections relating to safe work practices.

5.3 SAFETY MANAGER

The Safety Manager is responsible for the overall safety of the project. The Safety Manager directs and administers the COVID-19 Response Plan on this project. All inspections, screening surveys, incident reports and other information relating to the

COVID-19 Response Plan are to be submitted to the Safety Manager. The Safety Manager shall conduct COVID-19 Orientations. Subcontractor JSA's, and all required documentation, shall be reviewed and tracked by the Safety Manger.

5.4 EMPLOYEES

Employees who have been exposed or infected with COVID-19, must immediately notify their supervisor.
All employees shall attend the COVID-19 Orientation.
All employees shall review and comply with the COVID-19 Response Plan.
All employees shall comply with MIOHSA Emergency Rules – Coronavirus Disease 2019 (October 2020). If an employee is sick or has symptoms of a respiratory illness (fever, cough, sore throat, shortness of breath), he/she shall not return to work until 10 days since first symptoms and 24 hours since fever without use of fever-reducing medication.
All employees shall wear face coverings when 6-feet distance cannot be maintained while at the workplace (on-site or corporate office) and practice social distancing as best to their ability while preforming their job tasks.
All employees shall complete the Daily COVID-19 Screening Survey prior to starting work each day.

6.0 PROCEDURES

6.1 PERSONAL HYGIENE

a. Office trailers and tool trailers shall be cleaned and disinfected regularly, at a minimum of twice per week.
b. When possible, workers should avoid using other worker's desks, tools, phones, PPE, etc.
c. Frequently touched surfaces shall be cleaned and disinfected at a minimum of twice daily; however, three (3) times per day is recommended. Consider shared tools, shared equipment, doorknobs, keyboards, cell phones, refrigerators, microwaves, coffee pots, light switches, etc.
d. Workers shall clean up around themselves each-and-every day. Include field lunch areas, meeting areas, etc.
e. Tissues and trashcans (no touch trash cans when possible) will be provided for worker use.
f. Hand hygiene supplies are readily accessible throughout the jobsite and promote wearing proper gloves for work activities.
g. Eliminate common shared-snacks. Remove them from sites, offices, work areas, etc.
h. Signage shall be posted on the jobsite and at job trailers, port-a-johns, break areas, etc. Verbiage should include symptom reporting, hand-washing, and social distancing.

6.2 SOCIAL DISTANCING

a. A "no-handshake" guidance should be followed.
b. Workers shall maintain 3' distancing from each other at site huddles and other field interactions. Open-air meetings are highly encouraged - utilize the outdoors and well-ventilated areas.
c. Minimize face-to-face meetings and gatherings, like safety lunches. Use web-technology for meetings, when possible.
d. Keep in-person meetings to less than 15 people when in a conference room or closed area.
e. If areas have tight working areas where multiple people need to work, consider spacing out the timing of trade work, if possible.
f. Flexible hours and staggering work shifts (staggered days, hours, etc.) should be considered, if applicable.
g. Non-essential work travel shall be limited.

6.3 OUTBREAK OF INFECTION

a. If a large percentage of personnel become ill, Watertap Inc supervision will access procedures for continuation of work.
b. Office workers will be encouraged to work-from-home.
c. For on-site employees, the risk of spreading infection and potential exposure will be evaluated to determine the continuation of work.

6.4 VACCINATIONS

Employees are encouraged, not required, to receive the COVID-19 vaccine.

6.5 STIE ACCESS

a. All employees accessing the site are required to complete the questionnaire.
b. All delivery drivers MUST check-in with Watertap Inc site supervisor and complete questionnaire prior to accessing site.

7.0 INCIDENT ACTION PLAN

This portion of the plan defines the proper procedure for assessing the risk of exposure to COVID-19 if there has been a confirmed case on the jobsite. Decisions regarding the possible personal and location/material exposure can be made using the latest CDC Guidelines.

7.1 PERSON(S) POSSIBLY EXPOSED TO COVID-19

Immediately notify the Watertap Inc Supervisor and Safety Manager.

7.2 MEDICAL EVALUATION RESOURCES

The Watertap Inc Project Manager shall confirm if the current medical provider for work-related injuries is equipped to provide support for evaluation of COVID-19.

7.3 PERSON(S) VERIFIED WITH SYMPTOMS OF COVID-19

a. Move potentially infectious people to a location away from workers, customers, and other visitors. Although most worksites do not have specific isolation rooms, designated areas with closable doors may serve as isolation rooms until potentially sick people can be removed from the worksite.
b. A temporary toilet facility (i.e., port-a-john) is NOT considered an isolation room.
c. Provide a facemask, if feasible and available, and ask the person to wear it, if tolerated.
   - Note: A Facemask (also called a surgical mask, procedure mask, or other similar terms) on a patient or other sick person should not be confused with PPE for a worker; the mask acts to contain potentially infectious respiratory secretions at the source (i.e., the person's nose and mouth).
d. Restrict the number of personnel entering isolation areas.
e. Once person is removed from the isolation room, perform cleaning and disinfection of the room.

7.4 PERSON(S) WITH CONFIRMED CASE OF COVID-19

a. All employees are required to immediately notify the Watertap Inc Human Resources Department if they have a received a positive result for a COVID-19 test.
b. Watertap Inc shall notify the local health department of the positive case.
c. All co-workers, contractors and suppliers who may have come into contact with the person with a positive case shall be notified immediately; or within 24-hours.

7.5 LOCATION/MATERIALS POSSIBLY EXPOSED TO COVID-19

a. Contact professional cleaners for heavily contaminated, enclosed areas such as office trailers
b. If professional cleaners are not available or there is a low risk of material contamination:
   - It is recommended to close off areas used by the ill persons and wait as long as practical before beginning cleaning and disinfection to minimize potential for exposure to respiratory droplets. Open outside doors and windows to increase air circulation in the area. If possible, wait up to 24 hours before beginning cleaning and disinfection.
   - Cleaning staff should clean and disinfect all areas (e.g., offices, bathrooms, and common areas) used by the ill persons, focusing especially on frequently touched surfaces.

7.6 PERSONAL PROTECTIVE EQUIPMENT AND HAND HYGIENE DURING CLEANING AND DISINFECTING OF SURFACES

a. Cleaning staff should wear disposable gloves and gowns for all tasks in the cleaning process, including handling trash.
   - Gloves and gowns should be compatible with the disinfectant products being used.
   - Additional PPE might be required based on the cleaning/disinfectant products being used and whether there is a risk of splash.
   - Gloves and gowns should be removed carefully to avoid contamination of the wearer and the surrounding area. Be sure to clean hands after removing gloves.
b. Gloves should be removed after cleaning a room or area occupied by ill persons. Clean hands immediately after gloves are removed.
c. Cleaning staff should immediately report breaches in PPE (e.g., tear in gloves) or any potential exposures to their supervisor.
d. Cleaning staff and others should clean hands often, including immediately after removing gloves and after contact with an ill person, by washing hands with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains 60%-95% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.

8.0 QUARANTINE AND ISOLATION

a. Employees shall not be permitted to return to work until after the quarantine/isolation period as required by their local health department.
b. Quarantine/isolation periods vary depending on vaccination status and exposure.
c. The State of Michigan Health Department, and most local health departments, are following the CDC recommendations for quarantine and isolation.
   - *All* individuals, regardless of vaccination status and quarantine period, should self-monitor for symptoms and wear face coverings until 10 days after last exposure. If symptoms develop after exposure, individuals must isolate and should be tested.
     - **Vaccinated/Up-to-Date Individuals** who have been exposed to COVID-19 are ***not*** required to quarantine *unless* symptoms develop and should be tested at least 5 full days after last exposure.

- **Unvaccinated/Not Up-to-Date Individuals** who have been exposed to COVID-19 shall quarantine and should get tested, both, at least 5 full days after last exposure.
  ***Individuals who have been exposed to COVID-19 *and* had a confirmed case of COVID-19 within 90 days are *not* required to quarantine.**

- *All* individuals who test positive for COVID-19 or have symptoms shall isolate for at least 5 days after first day of symptoms or positive test results, and wear face coverings until 10 days after first day of symptoms or positive test results.
  Individuals who tested positive but did *not* have symptoms, can end isolation after at least 5 full days after positive test results.
  Individuals who did have symptoms that are improving, can end isolation after at least 5 full days after first day of symptoms *and* 24 hours without a fever (without the use of fever-reducing medication).
- Individuals whose symptoms are not improving, or are immunocompromised, should isolate for at least 10 days *and* consult with their physician before ending isolation.

9.0 TRAINING

a. All employees shall be trained on SARS-CoV-2 and COVID-19.
b. Training shall include:
   - Safe Work Practices
   - Proper PPE Selection and Use
   - Possible Infection Procedures
   - Reporting Unsafe Working Conditions

10.0 RECORDKEEPING

All records including training, screening surveys and records of notification (local health department and co-workers) shall be kept for a minimum of 1 year.

11.0 ATTACHMENTS

a. COVID-19 Screening Survey
b. COVID-19 Orientation
c. COVID-19 Toolbox Talk

COVID-19 SCREENING SURVEY

Date _____

1. Do you currently have or in the past 7 days had any of the following symptoms?
   - Fever, greater than 100°
   - Cough
   - Shortness of Breath
   - Sore Throat
   - Diarrhea

2. Within the last 14 days, have you been exposed to COVID-19, or had any close contact (within 3 feet) with someone who has a confirmed diagnosis of COVID-19?

3. Within the last 14 days, have you travelled internationally, domestically, or to an area with a known local spread of COVID-19?

If "Yes" to any of the questions, follow steps in Incident Action Plan. Worker may not return to work until 5 full days since first symptom and 24 hours without a fever (without fever-reducing medication). If unvaccinated or not up-to-date (Vaccine and booster-if eligible), worker may not return to work for 5 full days if exposed to COVID-19.

Name	Company	#1	#2	#3	Temp

COVID-19 ORIENTATION

- All workers must complete the Daily COVID-19 Screening Survey.
  - *If you answer, "Yes", to any of the questions, follow steps in Incident Action Plan.*
  - *Workers may not return to work until 5 full days since first symptoms and 24 hours without fever;*
  - *If unvaccinated or not up-to-date (Vaccine and booster-if eligible) 5 days if exposed to COVID-19.*
- Self-Monitoring is encouraged. If you have a fever before leaving for work or are experiencing any symptom, stay home. Symptoms of COVID-19:
  - Fever, greater than 100°
  - Cough
  - Shortness of Breath
  - Sore Throat
  - Diarrhea
- Notify Watertap Inc Superintendent and/or Safety Manager immediately if any worker has contracted or potentially contracted COVID-19.
- In addition to "traditional" PPE, a face covering (face mask – surgical, homemade, etc. or other fabric that covers both nose and mouth and is secured to worker's head) is required *if social distance (3') cannot be maintained.*
- JSA's must include the safe work practices and procedures of the Watertap Inc COVID-19 Response Plan – Cleaning/Disinfecting, Personal Hygiene, Social Distancing.
- All common and "Frequently Touched" surfaces will be cleaned and disinfected regularly (at least twice daily) along with office trailers/spaces, lunch/break areas, and tools and equipment after each shift or before used by another employee.

Social Distancing

- Do not host group meetings. When meeting or working and keep 3 -feet distance between people. Perform meetings online or via conference call whenever possible.
- Limit the number of workers in an area.
- Avoid personal contact such as hand-shaking and other contact greetings.

When a task requires two or more employees and social distancing cannot be accomplished:

- Identify the tasks specifically where social distancing cannot be accomplished and the use face covering, shields, goggles and face masks as appropriate for the activity and how they will be implemented safely.
- Address the hazards for the site on a task-by-task basis for the work shift and perform a JSA prior to initiating the work.

Guidelines to be implemented when social distancing cannot be accomplished:

- The task shall limit the amount of time of non-social distancing to minimum.
- Employees will practice good hygiene including thorough hand washing when going on breaks, after using the restroom, after sneezing or coughing, at the completion of the task and end of the work shift.
- Enforce the use of face coverings, protective barriers, goggles, gloves, and face shields as appropriate for the task.
- Clean and disinfect tools/equipment before shared with others and before and after use.
- Work groups of employees that are in close proximity to each other they will be limited in size.
- Employees that have been designated to work together shall be limited and maintained throughout the work shift. This may be extended to a day-by-day if feasible and is safe to do so.
- Employees should bring any concerns to the supervisor and if not resolved and they are still not comfortable working within these guidelines they may decline from participating in task assigned.

Date	Name	Company	Signature

COVID-19 TOOLBOX TALK

Date: _____

What are the symptoms of COVID-19?
Symptoms for COVID-19 include fever/chills **and** shortness of breath, cough or sore throat.

How does COVID-19 spread?
COVID-19 is thought to spread mainly from person to person through coughing or sneezing. It may also be spread when people touch something with the virus on it then touch their mouth or nose. Symptoms usually appear 7-14 days after exposure.

Who is at higher risk for COVID-19 complications?
Pregnant women, and children or adults with underlying conditions such as asthma, diabetes, suppressed immune systems, heart disease, and kidney disease, are more likely to have complications.

How severe is illness associated with COVID-19?
Illness has ranged from mild to severe. Most people have recovered without needing medical treatment. However, hospitalizations and deaths have occurred.

How do I protect myself?
Practice good hygiene!

- Avoid close contact with people who are sick.
- Avoid touching your eyes, nose and mouth.
- Stay home when you are sick.
- Cover your cough or sneeze with a tissue, then throw the tissue in the trash.
- Clean and disinfect frequently touched objects and surfaces using a regular household cleaning spray or wipe.
- Wash your hands often with soap and water for at least 20 seconds, especially after going to the bathroom; before eating; and after blowing your nose, coughing, or sneezing.
  - If soap and water are not readily available, use an alcohol-based hand sanitizer with at least 60% alcohol. Always wash hands with soap and water if hands are visibly dirty

Stigma hurts everyone by creating more fear or anger toward ordinary people instead of the disease that is causing the problem. We can fight stigma and avoid hurting others by providing social support. We can communicate the facts that being Chinese or Asian-American does not increase the chance of getting or spreading COVID-19.

Attendance Sign-In

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____